Incorporating *International Commerce*

NOVEMBER 16, 1970

A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Commerce Today

Coming Developments in Business and Technology

New Opportunity At Kings Point

FROM THE SECRETARY

What's Coming Statistically Represents Cornerstones Of The New Decade

Economic indicators are always watched with care by the American business community. In a year such as 1970, with major changes taking place, they are followed with particular interest.

One of the chief services performed by the the Department of Commerce is the compilation and publication of economic data. Retail Sales, Factory Orders, Housing Starts, Imports and Exports—all of these and many more are tabulated and issued by the Bureau of the Census.

In addition, Census provides much of the basic information used in such key indicators as Gross National Product, Personal Income, and Balance of Payments, published by the Department's Office of Business Economics.

On a contract basis, the Census Bureau also provides the raw materials for the Labor Department's BLS' reports on employment, plus much of the basic statistical data for the President's Council of Economic Advisors.

All of this information is absorbed by American business and government into the decision-making processes which affect the flow and progress of our economy.

Each set of figures is compiled and released on a regular programmed basis. One of President Nixon's first official acts, in February 1969, was to issue an Executive Order requiring the release of statistical data by the Federal Government within a fixed time period (usually 48 hours) after it comes out of the computer. This procedure makes certain that vital information is not subject to manipulation or political use.

The downs and ups of 1970 have confirmed the value of regular monthly or quarterly figures. But individual statistics often are not as meaningful as they appear, unless they are viewed in the context of developing trends.

To take the rate of inflation, for example:

The rise of consumer prices for the first quarter of 1970 was at the rate of 6.3 percent; the second quarter, 5.8 percent; the third quarter, 4.2 percent. On a trend basis, the evidence is clear that inflation is cooling. The monthly figures, however, are uneven.

The major figures compiled by the Census Bureau are, of course, those gathered every ten years, in the national Census of Population and Housing. These statistics provide the fundamental long-term trends in our Nation's growth and development against which all other measurements apply.

Official population figures from the 1970 Census will be submitted to the President by December 1. In turn, he will submit them to the Congress, and the process of Congressional reapportionment will begin.

But some of the most valuable, most interesting figures from Census '70 are yet to come. Beginning next January, the Census Bureau will open flood gates on a vast flow of statistical information covering the earnings, housing, age distribution, migration patterns, education and other characteristics of the American people.

These data will be made public as rapidly as possible over a period of several months. They will be invaluable to government and business alike.

Census '70 was the most comprehensive and accurate decennial census ever taken. Now the Commerce Department looks forward to making public the statistical cornerstones of the new decade.

Maurice H. Stans

Commerce Today

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U.S. DEPARTMENT
OF COMMERCE

MAURICE H. STANS
Secretary

ROCCO C. SICILIANO
Under Secretary

HERB KOSTER
Director of Public Affairs

RICHARD EVANS
Editor

RICHARD BALENTINE
Associate Editor, Science and Technology

JOHN G. STRINGER
Associate Editor, Domestic Business

CLARENCE M. ZENS
Associate Editor, International Commerce

AMERICO A. W. FAVALE
Coordinator of Graphics

Published biweekly by the U.S. Department of Commerce, Washington, D.C.

Annual subscription rate $20 ($5 additional for foreign mailing, $14.30 additional for domestic air mailing). Single copy 75 cents. Make checks or money orders payable to Superintendent of Documents and mail to Superintendent, U.S. Government Printing Office, Washington, D.C. 20402, or to any U.S. Department of Commerce Field Office.

All subscription inquiries and address changes should be sent to the Superintendent of Documents, at the above address. This is the central distribution agency for U.S. Government publications.

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ECONOMIC
HIGHLIGHTS

Automobile Dispute Interrupts Business Growth; Economic Upswing To Resume After Settlement

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

The automobile strike has taken the steam out of the Nation's economic boiler. The walkout, which began on Sept. 15, occurred just as the economy was showing unmistakable signs of renewed vigor. The immediate impact of the strike was on the auto industry's production, sales, payrolls, and profits. The impact spread quickly to the numerous firms that supply General Motors. By now, the loss of paychecks is being felt in retail stores across the country.

Although the work stoppage has stalled the economy, the effects are only temporary. Once the industry is back in full production, it will operate on an overtime schedule to offset the loss in output as quickly as possible. The supplying industries—parts makers, tires, steel, aluminum, plastics, etc.—will also be making up for lost time. All of this will give the economy a strong temporary boost. The strike, therefore, is upsetting the timetable for renewed growth, without disturbing the underlying strength of the economy.

Some evidence of this strength is reflected in the labor-force data for October. Despite many reports of strike-related layoffs in supplier industries, total employment (which counts strikers as employed) was up slightly from September and the unemployment rate increased only .1 of a percentage point.

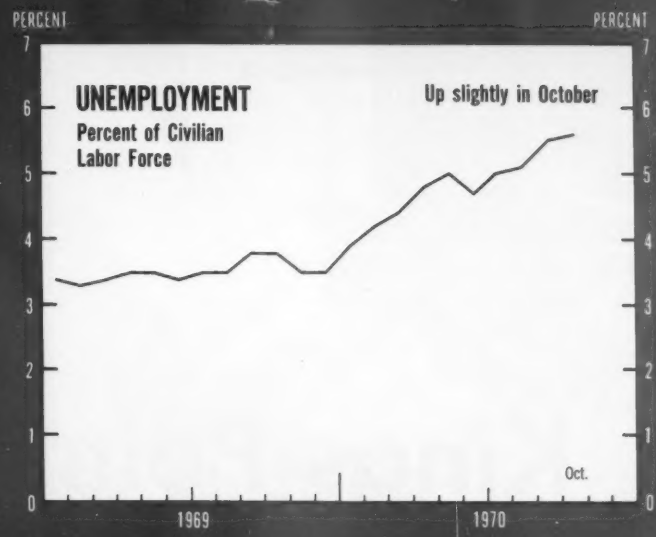
September data for the leading business indicators clearly show the impact of the strike. Factory orders, the ratio of prices to unit labor costs, and unemployment claims—and, consequently, the composite leading index—all were affected adversely. These series, along with most other general economic data, will continue to be distorted for the duration of the strike and for a short time thereafter.

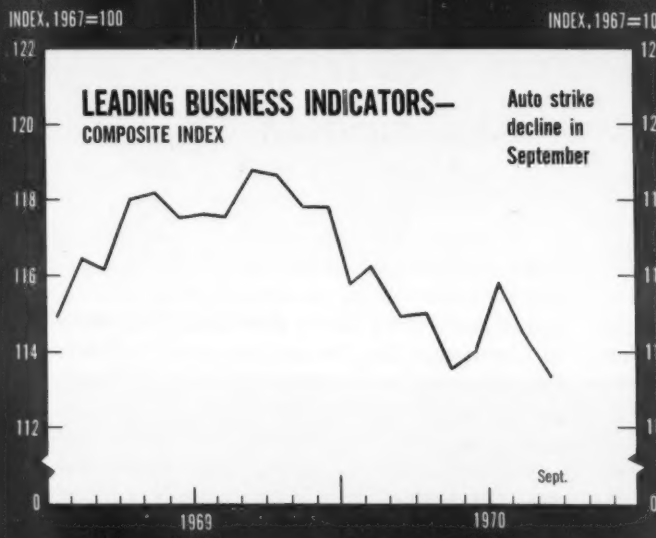
Manufacturers' sales declined $600 million in September, primarily due to the auto dispute. The September level remains well above the low point recorded in the spring, however.

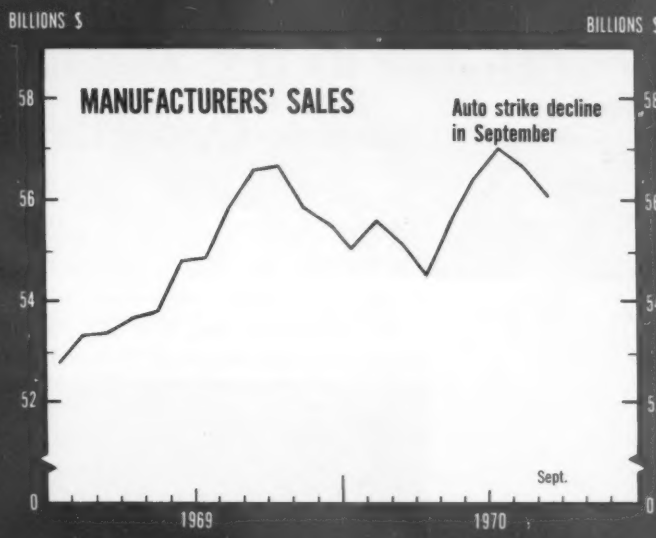
An encouraging improvement in productivity appeared in recent quarters, following a year of stagnation. Output per man-hour increased at an annual rate of 3.9 percent in the spring quarter and 4.8 percent in the third quarter. This gain in efficiency has helped offset the effect of wage increases on the cost structure of business.

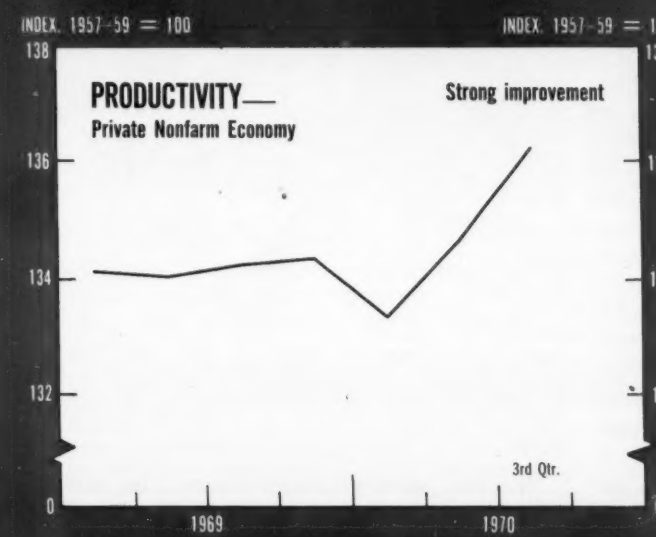
The Nation's merchandise trade surplus narrowed in the past several months, but prospects still are bright for a surplus of $3 billion or more for the year—far greater than the depressed levels of the past two years.

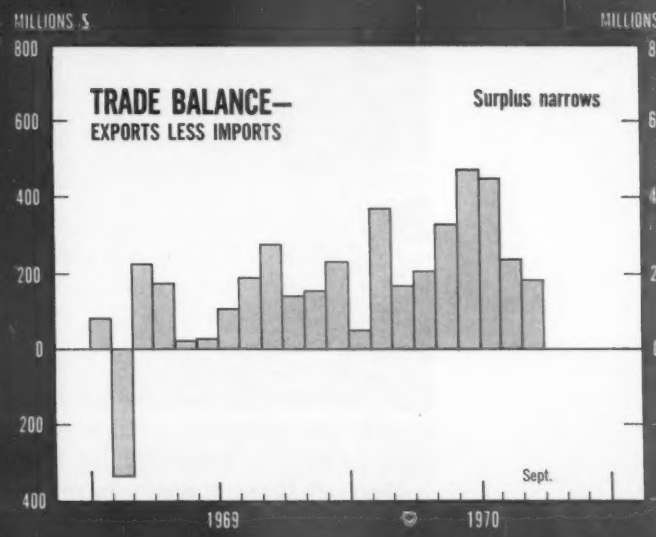
Latest Indicators











All data seasonally adjusted.

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Vol. I, No. 3

Kings Point Comes Alive

Changes At U.S. Merchant Marine Academy Promise New Opportunities For Midshipmen

The American flag flies 175 feet over the former marbled home of Walter P. Chrysler, now the Administration Building of the United States Merchant Marine Academy at Kings' Point, N.Y. But the calm Old World charm of the Academy grounds does not hide the quickening pulse of the 68-acre campus.

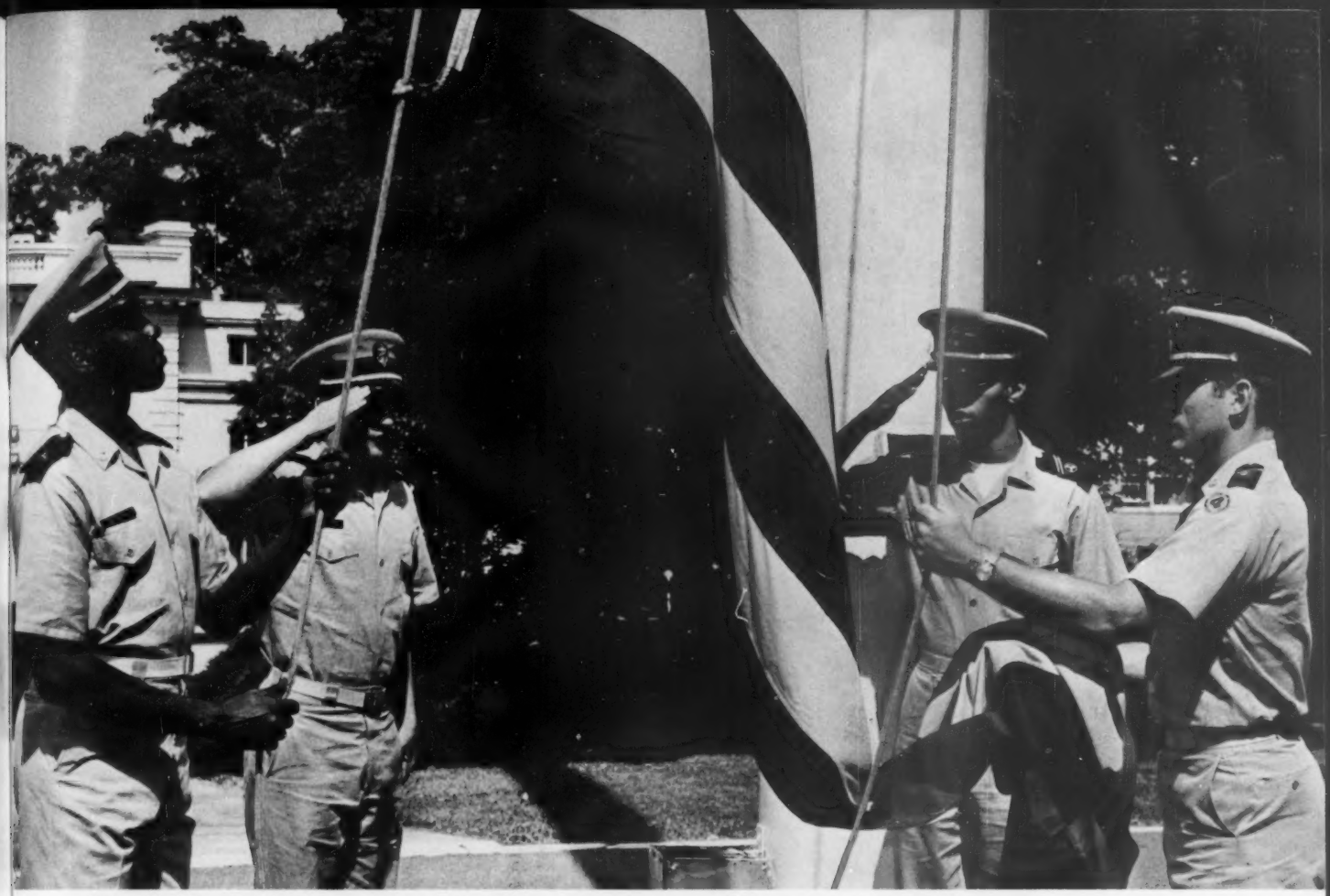
Changes are being made at the Merchant Marine Academy, which until now has remained essentially the same since its dedication 28 years ago. A new library has already been built. Money has been appropriated to repair the badly deteriorated pier and to construct new sailing facilities. What may be a million-dollar renovation of the outmoded midshipmen's quarters will begin this year. A 10-year program is in process to upgrade the academic skills of the faculty members; in fact, several of the 45 master's degrees on the staff and three of the Ph.D's have been obtained in the past three years. Even the curriculum of the school, stagnant since the end of World War II, is being broadened to include more courses in such non-technical fields as history, economics and English.

Most of these changes have been motivated by Andrew E. Gibson, Maritime Administrator and new Assistant Secretary of Commerce for the agency which directs the Academy and provides nearly $6.5 million of the school's budget.

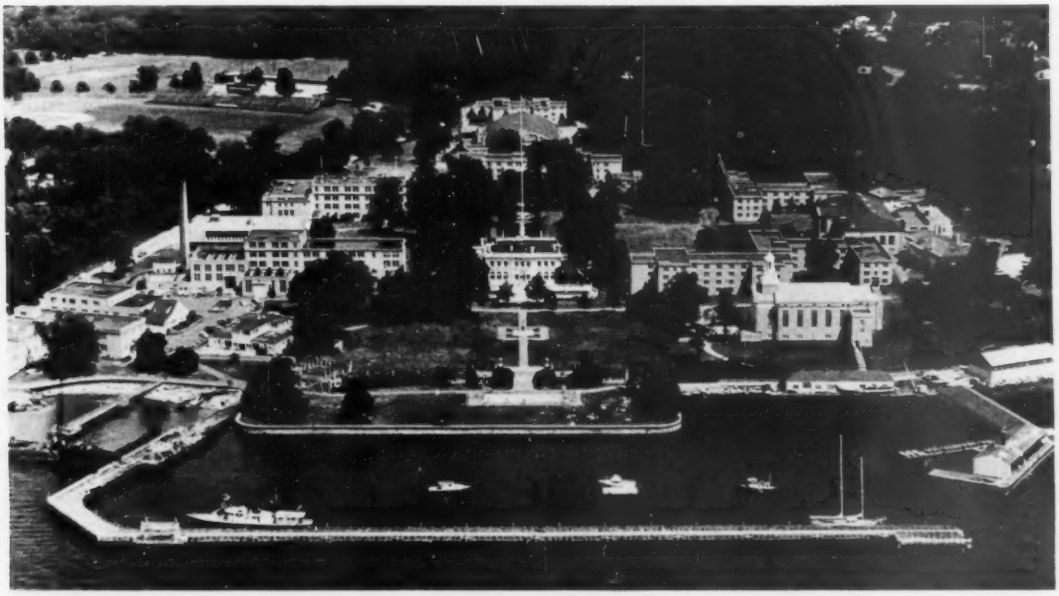
Gibson also has been largely responsible for the new minority group recruitment program at Kings Point. Although Kings Point has had black students since it was founded, the Academy has intensified its efforts to recruit candidates from minority groups—with special emphasis on black students. Appointed to the Maritime Administration staff to carry out this objective of recruiting blacks for admission to the Academy was Joe Scroggins, Jr., a 1963 graduate of Kings Point.

After six years at sea, last year Commander Scroggins came ashore to do this job for his alma mater, because he felt the Federal government's move to attract and train minority groups as officers in the Merchant Marine and as ensigns in the U.S. Naval Reserve important enough to interrupt his sea duty.

"In the years of its existence," he said, "the United States Merchant Marine Acad-



AT SUNRISE—*Midshipmen proudly raise Old Glory up the 175-foot flagpole (the tallest in the world) to begin the day at Kings Point. Awake before sunup, they study until "Lights Out."*



KINGS POINT—*The U.S. Merchant Marine Academy, established in 1942, is under the direction of the Maritime Administration of the Department of Commerce. It is a national institution, military in character, and an accredited, four-year, degree-granting college. One year of the training is spent at sea. Upon graduation, its Midshipmen are qualified Merchant Marine deck or engineering officers.*

GOOD LUCK SYMBOL—*Assistant Dean, Commander Paul Krinsky, tosses a penny to Amphitrite, goddess of the sea, while he and Midshipman Milton Irvin take Kenneth Guscott, President of the New England Region NAACP (third from left), and members of his organization on a campus tour.*

emy has graduated only 16 black officers. My own class had only two."

A major reason why so few members of minority groups have entered Kings Point, officials pointed out, is that many are unaware that the Academy exists. Others do not know how to get an appointment; and still others hesitate to apply, believing the Academy is an 'all white' college.

Any young man between the ages of 17 and 22, who is a United States citizen, unmarried, of good moral character, and who has satisfactorily completed a high school education at an accredited secondary school or equivalent, is eligible to be a candidate. The candidate must also meet the requirements for appointment as a Naval Reserve Midshipman. In addition, he is required to qualify in the nationally administered College Entrance Examination Board tests. There are no exceptions to the Academy's general, academic or physical requirements.

Candidates to Kings Point must be nominated by a member of the U.S. Congress (each of whom may make 10 appointments) or by a special nominating authority, such as the governor of Puerto Rico or the mayor of Washington, D.C. A young man interested in receiving an appointment should write to the appropriate official requesting nomination to the Academy.

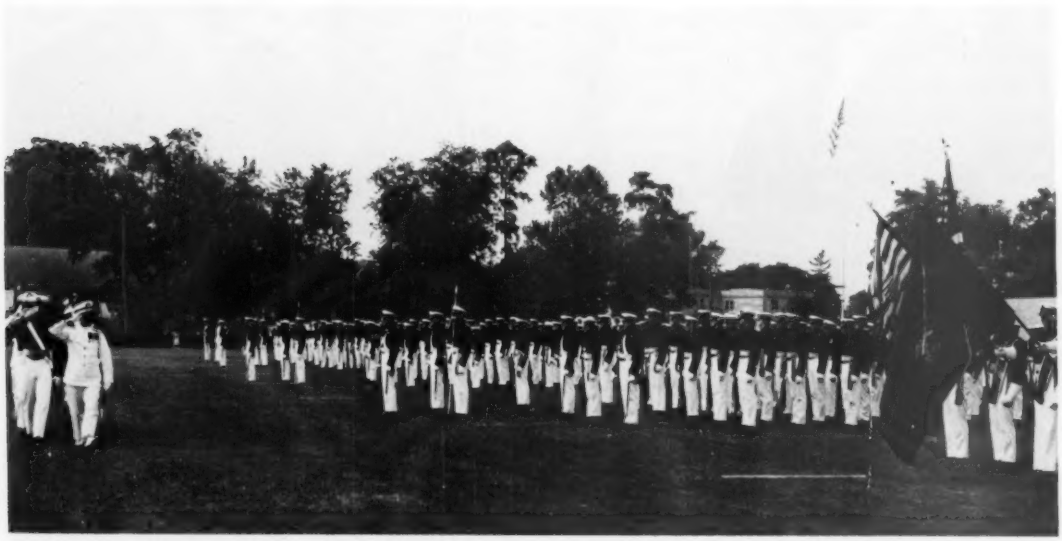
Part of Commander Scroggins' new job as Assistant Dean, Director of Candidate Recruiting for the Academy, is to bring together

The U.S. Merchant Marine Academy motto, Acta Non Verba (Deeds Not Words), is the foundation on which the Academy has built its minority recruitment program.

GOLDEN OPPORTUNITY—*Cmdr. Joe Scroggins, Director of Candidate Recruiting for the Merchant Marine Academy, says, "It's a golden opportunity for minority-group members—like myself—to have a highly satisfying career in a demanding field, see the world and earn excellent pay—all at the same time."*

FASCINATING WORLD—*One of the marvels of the new Merchant Marine Academy library is this model of the earth, as seen from 3,800 miles up. Among the interested visitors is Kenneth Guscott (second from left), New England Region NAACP president who helps recruit blacks as Academy candidates.*

THE WORLD FOR A CAMPUS—*The second year at Kings Point, Midshipmen put to sea. Shown on duty before his 1968 graduation is James N. Williams, first black editor of the Kings Point newspaper "Hear This."*



SPIT AND POLISH—*Midshipmen at attention are saluted by their commanding officers.*

TOMORROW THEY'LL BE IN STEP—*Led by an upperclassman, members of the Plebe class start their Kings Point indoctrination.*

qualified applicants and Congressmen. His duties also include telling the Kings Point story to the public, as well as minority high school students, and advising the Academy's administration and faculty on the special problems blacks and other minority students face.

To help minority students obtain entrance information, Scroggins has offered his personal services in letters written to high school guidance counselors throughout the country. He has had an overwhelming response.

"In fact," he said, "I found myself responsible for the recruitment of white as well as black students, since in many cases guidance counselors would schedule assemblies for the complete enrollment of their junior and senior high school classes."

Scroggins said that a Midshipman must serve three years in the Merchant Marine after graduation. "Once this obligation is fulfilled," he said, "the men often find themselves in demand by the maritime industry because of their expert knowledge of shipping and world trade. Many, however, will make the Merchant Marine a career, since the pay is good and they get to see the world."

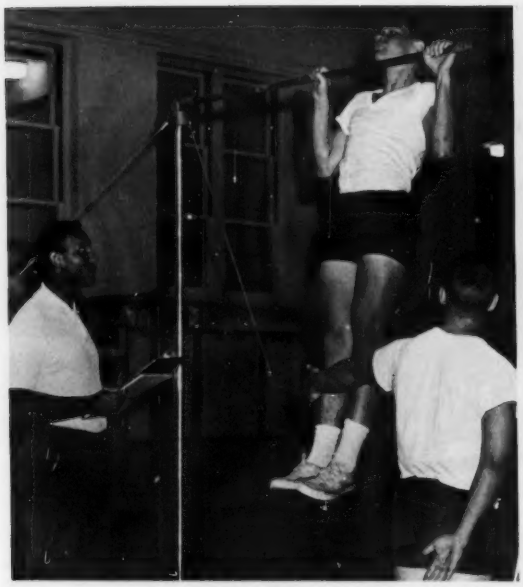
One of the selling points Scroggins has found for the recruitment program is that if a graduate elects to make the U.S. Merchant Marine his career, he is considered to be fulfilling his military obligation while he serves his country as a deck or engineering officer in the merchant marine.

Most graduates do elect to stay in the Merchant Marine after their three-year obligation is complete. A recent survey made by the Academy Alumni Office reveals that over 84 percent of the graduates of the past six classes are currently sailing in the Merchant Marine or on active military duty. Of the 1,023 surveyed, 796 were found to be sea-going in a licensed merchant marine capacity and 66 were on duty as officers in either the United States Navy or the United States Coast Guard.

In the New England area, recruitment assistance comes from Kenneth Guscott, President of the New England Region NAACP and an executive with General Dynamics, Electric Boat Division. Guscott, a black Academy graduate, actively recruits minorities on a volunteer basis. Because of his efforts, last summer's New England Region NAACP booth, at the national NAACP convention in Cincinnati, Ohio, centered around black recruitment to Kings Point.

The Academy is pursuing still another black recruitment program. To date, Lt. Ken Bantum, a professor of Physical Education and a member of the coaching staff, has been the only black faculty member. This fall, however, four more black teachers joined the staff on teaching fellowships.

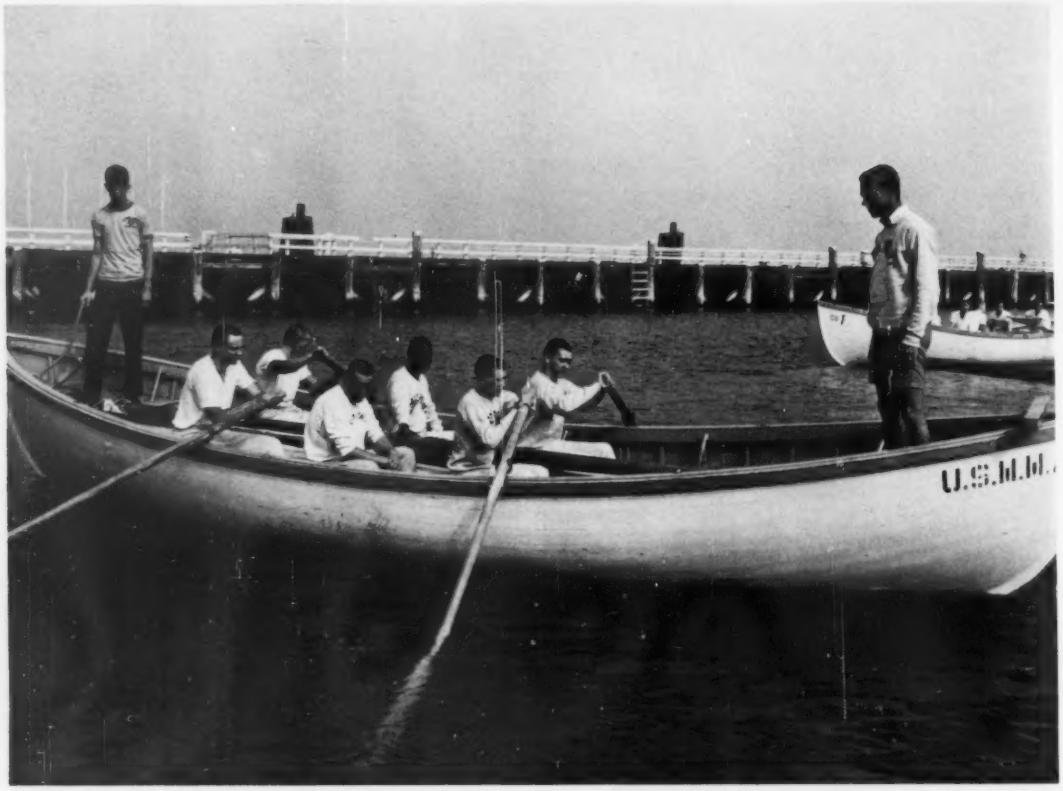
The results of Scroggins' recruitment program during the first year show that more than 500 young black men indicated an interest in Kings Point. Of these, 100 were qualified, and 20 were accepted into the Class of 1974—a giant step towards educating



HOW MANY CHIN UPS—*Former U.S. Olympic Team member Lt. Ken Bantum knows the answer. The first black faculty member at Kings Point, he is a professor of Physical Education.*

LEAVING THE CHAPEL—*Midshipmen descending the steps of the Kings Point Memorial Chapel. The unique altar at the Chapel rotates on a turntable to serve three faiths—Protestant, Catholic and Jewish.*

TEAMWORK—*Andrew E. Gibson, Maritime Administrator and the new Commerce Assistant Secretary for the agency congratulates Cmdr. Joe Scroggins on minority recruitment at Kings Point.*



WATERY CLASSROOM — *Midshipmen at Kings Point go to school on the water, too. A Kings Point upperclassman guides new plebes in their "Lifeboat Ticket" indoctrination, a course that must be passed.*

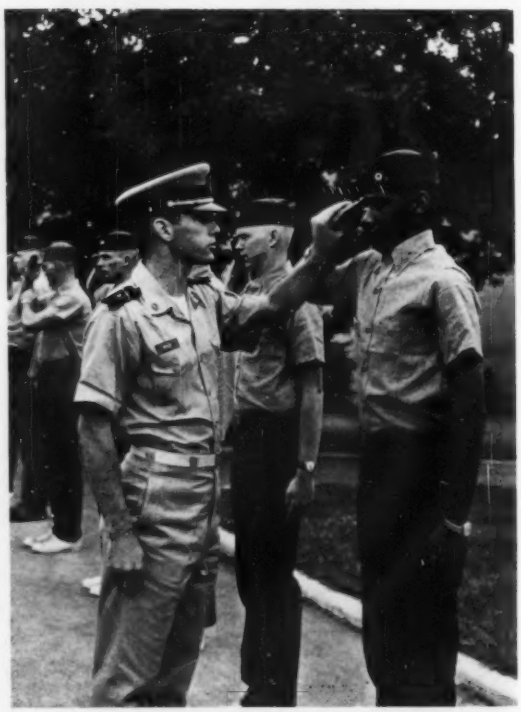
minorities to be masters of their own ships, or even heads of shipping companies. Next year, Scroggins expects to double the number of minority appointments, as well as to seek out Mexican-Americans and Indians as possible candidates.

"The Merchant Marine Academy has always bridged the gap between adolescence and manhood," said Scroggins. "Now we're bridging another gap—between minorities and white."

The innovations at the Academy are adding further strength to its traditions. The minority recruitment, the new buildings, the faculty academic program, and the renovation of the boatdock are just the beginning. The new superintendent, Rear Adm. Arthur B. Engel, hopes to see a new fieldhouse, a new science building, and a new student center in the future.

The new life at Kings Point has added spirit to the undergraduates and the faculty, making the goals easier: to train young men to become first class officers on the high seas or to come ashore as leaders in the steamship industry.

—Maritime Administration



SHOWING THE WAY—*Starting their second day at Kings Point, 'Plebes' learn the correct method of saluting from upperclassmen.*

Where The Prospects Are In East European Markets

U.S. Businessmen On Commerce Mission See Modernization Opening Way To Sales

Because their "Five-Year" or similar economic plans emphasize industrial growth, and a vigorous concern with modernization, the countries of Eastern Europe are desirous of increasing their trade with the United States.

U.S. firms producing or selling products and technology related to these goals can sell there—if they are genuinely interested, persistent, and willing to learn the technique of doing business in countries where foreign commerce is a state monopoly.

Further, there is a growing interest in imports of equipment and technology which can contribute to the production of consumer-oriented products.

These were among the principal conclusions of a U.S. Instrumentation Trade Mission recently returned from Poland, Hungary, Romania and Czechoslovakia. It followed by several months an official U.S. Department of Commerce mission to Eastern Europe which had found that the time is propitious now for a further look at U.S. trade prospects in an area where Western Europe and Japan together were seeing their trade grow rapidly to a total figure of $13.5 billion in 1969 while the U.S. share there was at token levels only.

Hard facts bearing on U.S. regulations which impose controls on some products sought by the countries visited, deny Eximbank credits to finance imports from the U.S., and withhold, except for Poland, Most-Favored-Nation tariff treatment were discussed in the frank and free manner that is characteristic of business talk everywhere. The dialogue, indeed, ranged over all the factors that inhibit U.S.-Eastern Europe trade both ways.

Despite the product specialization which limited the scope of the mission insofar as its potential for large numbers of contacts was concerned, each member had a full working schedule. From these discussions came the comments of the Mission members. They have focused particularly on market indicators that will interest businessmen in the U.S. considering Eastern Europe as a possible market, in the days ahead, for increased export sales.

George Epstein, president of the Dage Corp., Stamford, Conn., selling electronic components to industry, reported: "Personally, I have observed a definite interest in U.S. made electronic components in Eastern Europe. Most of these people feel that the U.S. is unquestionably the leader and originator of state-of-the-art devices, and that more R & D is performed here than in other Western

European industrialized countries. . . The demands for our product are real."

Epstein also noted that problems of financing, often brought up in discussions of trading prospects in Eastern Europe, did not appear to be insurmountable in his case. "I was told not to be concerned about extending long-range credits," he said. "Since Dage business is not in the area of capital goods, but rather with components for manufacturing of equipment needed to keep production lines running, financing does not seem to be the limiting factor. It is my impression that the four countries are anxious to establish good credit reputations and will find their own ways of financing.

"I believe they will be willing to pay for extended credit," he continued. "If financing proves difficult to arrange in the U.S., many Western European countries are able and willing to assist with such financing. The numerous European branches of American banks are natural tools for such transactions and also the best sources."

Epstein made a personal plea, in his report, for both liberalization and clearer definition of U.S. export controls as they apply to Dage products. He observed that the matter of negotiating sales contracts against the uncertainty of getting or not getting export license approval "encouraged exporters like Dage to look to other geographic areas where export licensing may not be a limiting factor." He also commented in this connection that more liberal interpretations of strategic controls by the other Western nations were working to the disadvantage of U.S.-based firms, and sometimes for the benefit of U.S. subsidiaries abroad.

Charles H. English, marketing director of Sola Basic International in Milwaukee, reporting on his findings, said:

"I certainly will be going back there to follow up on requests for quotations for industrial furnaces. I think we can deliver sooner than some of the competition, and I am encouraged about the future." English encountered German, English, French and Japanese businessmen on almost every visit to the trade organizations in the countries on the itinerary.

Mission At Work

The U.S. Instrumentation Trade Mission, consisting of eight executives of American companies with Charles F. Boehm, Director, Export Services Program, Bureau of International Commerce, as its leader, began its work in Warsaw Sept. 12.

In each of the four countries it had a tightly programmed schedule. The American Embassies in Warsaw, Budapest, Bucharest and Prague arranged appointments through Ministries of Foreign Trade, Chambers of Commerce and Foreign Trade Organizations for both general and individual meetings.

In two countries there were seminars for technical presentations with slides and films on newer U.S. developments in instrumentation technology. Additionally, meetings with some instrumentation end-users were arranged.

U.S.-East Europe Trade Edges Up

$ million

Country	U.S. exports: First 9 mo. 1970	U.S. exports: Est. 1970	U.S. exports: 1969	U.S. imports: First 9 mo. 1970	U.S. imports: Est. 1970	U.S. imports: 1969
Total	**253.1**	**340.1**	**249.3**	**168.1**	**224.1**	**197.8**
East Germany	25.3	35.0	32.4	6.6	8.8	8.0
Czechoslovakia	16.3	23.0	14.4	17.1	22.8	24.1
Hungary	19.4	25.9	7.3	4.4	5.9	4.1
Poland	57.6	76.8	52.7	71.7	95.6	97.8
USSR	80.6	107.5	105.5	56.5	75.3	51.5
Romania	46.2	61.6	32.4	10.0	13.3	8.0
Bulgaria	7.7	10.3	4.7	1.8	2.4	1.6

* Annual estimate for 1970 based on first nine months, January-September 1970.
Source: U.S. Department of Commerce.

AT U.S. EMBASSY IN PRAGUE—*Mission members are received by U.S. Ambassador Malcolm Toon. From left, member Alexander R. Torok, C. R. Bard Int'l; Carl W. Schmidt, Embassy economic officer; Charles F. Boehm, mission director; Abraham H. Reinfeld, REA Int'l; Charles A. Rossiter, Orion Research; Ambassador Toon; Donald D. Paulsen, Fife Corp; Robert E. Finnigan, Finnigan Instruments Corp.; Elmer L. Decker, Martin-Decker Corp.; Charles English, Sola Basic Int'l; George Epstein, Dage Corp.*

Commenting on the high interest in the various products of Sola Basic—particularly industrial and laboratory furnaces, and communications equipment—he said that the Mission had already provided an opportunity to quote on approximately $1 million worth of equipment.

Referring to the procedure followed in the countries visited, of dealing through State trading organizations, English said, "A very practical way to contact the ultimate user is by means of trade shows and exhibits. They may be the best opportunity to showcase individual products. This is why we consider trade shows in Eastern Europe far more important than elsewhere in the world."

English also called attention to a number of "very real deterrents" to immediate substantial business with these countries: U.S. export controls, foreign exchange shortages, lack of meaningful information on the size of the markets, and denial—except to Poland—of Most-Favored-Nation treatment. English observed that most of the people with whom he talked emphasized MFN and they added that "our equipment would carry a duty rate approximately double that of other free-world countries." Similar comments on MFN were made by most of the group's eight businessmen.

The Mission had confirmed for it at first hand a long recognized axiom in international trade: A quality product sold abroad which is well-designed and built, easily serviced and long-lasting is a superb advertisement. Elmer Decker, chairman of the board, Martin-Decker Corp., Santa Ana, Calif., producers of oilwell drilling instrumentation and hydraulic load cells and scales for other heavy industry, learned in Romania that the first weight indicator purchased from his firm in the late 1920s was now on display in an oilwell museum in Ploesti. His firm's products were well-known in all four countries visited.

Decker expressed the belief that with re-

HEAVY SCHEDULE—*Director Charles Boehm (left) and Jerzy Zelislawski of the Polish Chamber of Foreign Trade pause for a picture as business appointments in Eastern Europe begin.*

TALKING WITH TRADE OFFICIALS—*In Warsaw, mission member Elmer Decker (right) talks with representatives of (from left) Polish Chamber of Foreign Trade, Press Agency (PAP), and CENTROZAP.*

cent changes in controls under the Export Administration Act of 1969, many products of U.S. firms in the instrumentation field will be moving into these markets. Because of advance work done for the mission, he said, users of his equipment and potential customers came, some of them from long distances, to discuss both oilwell drilling instrumentation and the firm's industrial line.

Abraham H. Reinfeld, president, REA International Corp., New York City, selling avionic, communications, navigation and testing equipment and aircraft products and components, reported that the mission was an entirely new experience in selling for him. "It opened doors for me which I could not have learned of without weeks of searching and effort on my part. I sincerely believe that with the knowledge that I have gained and the introductions accomplished through the mission, I will be coming back to these markets, and after some hard work, I expect to do a substantial volume of business."

Several of the members spoke enthusiastically about technical seminars as a technique offering particular advantages in selling instrumentation in Eastern Europe. Dr. Robert E. Finnigan, vice president of Finnigan Instruments Corp., Sunnyvale, Calif., whose firm produces gas chromatograph/mass spectrometer peak identifiers, computer systems and residual gas analyzers, urged the scheduling of trade missions in conjunction with appropriate technical meetings or trade shows being held in the country of interest.

Finnigan also suggested setting up technical seminars for mission members at central locations, with invitations to be issued long in advance to the technical community. In Czechoslovakia the U.S. Embassy, a cooperating chamber of commerce, and the CSAV-Academy of Science, Institute of Macromolecular Chemistry, Prague, arranged such a seminar, at which several of the mission members presented a program.

Another strong endorsement of the seminar technique came from Alexander R. Torok, vice president of C. R. Bard International Inc., Murray Hill, N.J., selling instruments used in health and medical sciences. Because of the make-up of his product line, Torok believes that the ideal arrangement for selling in Eastern Europe is periodic visitations to those countries by a qualified technical service representative. He said, "Actually, it is preferable to place a representative in a West Europe office, and it is also easier for him to service his accounts if he does not have to cross the Atlantic each time there is a major problem."

Charles A. Rossiter, general sales manager, Orion Research, Inc. of Cambridge, Massachusetts, whose products include specific ion electrodes, ion meters, water quality monitors, electrode switches, and air and water pollution testing devices, commended and urged the use of the technical seminar as a technique useful in sales in Eastern Europe.

GETTING IT STRAIGHT—*Mission member Charles Rossiter (left) discusses a fine point with Stanislaw Witoszynski, editor of the technical survey, Przeglad Techniczny.*

CHECKING OUT PROSPECTS—*Zdzislaw Matyjaszewski, Commercial assistant at U.S. Embassy in Warsaw (left) helps direct Robert Finnigan to likely customers for his laboratory research devices.*

He commented on the essentiality of follow-up activity in these markets, with special reference to university and technical institute sales possibilities.

One of the considerations that engaged the Mission's attention was the availability, in addition to the Foreign Trade Organizations which handle nearly all imports and exports for end-users in the various countries, of trade agencies which can represent and sell the products of foreign manufacturers.

Such agencies have been established during the past six to 18 months in three of the four countries visited: Czechoslovakia, Hungary and Romania. As the representative of a foreign manufacturer or seller, the trading agency will call on Foreign Trade Organizations and end-users in efforts to sell, and in some cases, to service the manufacturer's products.

In reviewing all of the aspects of the use of trade agencies in lieu of, or in addition to Foreign Trade Organizations, members of the Mission carefully considered the services performed and examined their usefulness in the light of availability of information on East European markets, the variety of products in which the trading company's competence was established, competitive factors, and the wide range of reimbursement methods presented.

Donald D. Paulsen, vice president for marketing of the Fife Corporation, Oklahoma City, Oklahoma, whose firm designs, manufactures and sells automatic web, cloth and steel strip guide systems and other industrial control equipment, said: "To summarize, at the present time it appears the use of agents to represent foreign manufacturers is becoming more possible in Eastern Europe, although it is still a new concept. Each manufacturer should carefully review his own products and business in conjunction with the potential in each of the various countries before deciding whether or not it is in his best interests to use a trading agent."

In a final meeting, the Mission members reviewed their activities on a country-by-country basis, analyzing each in detail. Without exception, each member considered his participation a success from the point of view of business prospects. For most members, venturing into the Eastern Europe market was a wholly new experience. Without exception each expressed the belief that he would be filling orders resulting from product and technology presentations and contacts developed through the Mission.

The American Embassies in the four capitals visited, and the Eastern Europe Division, BIC-898, U.S. Department of Commerce, Washington, D.C. 20230 are continuing sources of current information on trade with Eastern Europe countries.

(NOTE: Report on U.S.-Romania business discussions at Commerce Department is on page 38.)

Patent Treaty Will Benefit I

Cooperation Accord Makes Applications Simpler Internationally Once Ratified By Signatories

TREATY SIGNERS—*With members of the U.S. delegation looking on, U.S. Patents Commissioner William E. Schuyler, Jr., (seated left), and Eugene M. Braderman, Deputy Assistant Secretary of State for Commercial Affairs and Business Activities, sign the Patent Cooperation Treaty for the United States. Twenty-one nations have signed the document, and Dec. 31 is the signing deadline.*

Nation's Inventors

Applying for a patent on a single invention in several different countries could be a great deal simpler for the inventor as a result of the Patent Cooperation Treaty which currently awaits further signatures and ultimate ratification by the signatories.

The United States signed the Treaty June 19 along with 19 other nations following the four-week Washington Diplomatic Conference at the State Department which had been called to approve the treaty. Iran signed the treaty in July, bringing the total of signatories to 21. In addition to the United States, original signers were: Algeria, Brazil, Canada, Denmark, Finland, Germany, Holy See, Hungary, Ireland, Israel, Italy, Japan, Norway, Philippines, Sweden, Switzerland, United Arab Republic, United Kingdom and Yugoslavia.

It may also be signed by any of the 78 members of the Paris Union for the Protection of Industrial Property. Prospective signatories have until Dec. 31 to sign the document.

Treaty approval came after four years of negotiations during which its various provisions were carefully worked out.

Next step is ratification by each signatory. In this country, the treaty will be submitted to the U.S. Senate for its advice and consent. Three months after eight nations, four of whom must be major nations with regard to patent activity, have ratified it, the treaty becomes effective.

U.S. Commissioner of Patents William E. Schuyler, Jr., who served as co-chairman of the U.S. delegation to the conference with Eugene M. Braderman, Deputy Assistant Secretary of State for Commercial Affairs and Business Activities, called the treaty "a giant step forward in the international protection of intellectual and industrial property." He said at the signing session that he hoped the U.S. would be one of the first countries to ratify the treaty and one of the first to make use of its provisions.

The treaty has been under development since 1966 by the United International Bureaux for the Protection of Intellectual Property, the Secretariat of the Paris Union. Several drafts were prepared and intensively reviewed by expert committees from the various Paris Union member states prior to the concluding June conference.

A key obstacle to the treaty, and one of particular concern to industry groups in the U.S., was the question of retaining national control of the "prior art effect" of U.S. patents with regard to applications filed under the treaty. The solution reached by the conference permits the U.S. and the other nations to retain principles of current domestic patent law after the treaty goes into operation.

This provision is contained in a reservation clause (Article 64(4)(a)) which states: "Any State whose national law provides for prior art effect of its patents as from a date before publication, but does not equate for prior art purposes the priority date claimed under the Paris Convention for the Protection of Industrial Property to the actual filing date in that State, may declare that the filing outside that State of an international application designating that State is not equated to an actual filing in that State for prior art purposes."

A principal feature of the treaty is a procedure permitting an applicant to file an international application in the patent office of his own country in an "agreed language" which will be English in the case of U.S. citizens. The application will have a standard format acceptable to all member nations, and will include designation of one or more member nations in which the applicant desires protection. At the time of filing, the international application will be subject to an international fee, but payment of national fees and translation expenses will be delayed until completion of international processing. An international search report will be prepared by one of a number of qualified international

CONDUCTING PROCEEDINGS—*Officials of the United International Bureaux for the Protection of Intellectual Property, Dr. Arpad Bogsch (left), First Deputy Director and Secretary General of the conference, and Klaus Pfanner, Senior Counselor, conduct the proceedings at one session.*

searching authorities, one of which may be the U.S. Patent Office.

A copy of the report will be furnished to the applicant who may then wish to amend his application in view of facts in the report. The United International Bureaux for the Protection of Intellectual Property in Geneva will distribute to each state designated by the inventor copies of the international application, with amendments, and the search report. National processing, examination, and issuing of patents will then be up to each individual nation under its national patent law.

An advantage to the applicant is that he may defer payment of translation costs and national fees up to 20 months from the date he files his international application, eight months more than is now provided by the Paris convention. With this additional period and the international search report, the applicant should be able to better assess the potential of his invention before deciding to incur the major expenses of national processing in many foreign countries. Since the applicant must begin preparation of the necessary papers and translations for foreign filing about four months before the date upon which papers must be filed in the foreign patent offices, the treaty will actually double the effective decision time for the inventor.

Use of the treaty provisions is optional, and an applicant still may file an application in each nation in which he wishes protection, if he prefers this method.

Also optional and of principal interest to developing nations who do not have extensive searching facilities available is another phase of the treaty. This provides for preparation by one of the qualified examining authorities of an international preliminary examination report comprising an advisory opinion on the novelty, non-obviousness, and industrial applicability of the claimed invention. Nations which lack sufficient resources to maintain well-staffed patent offices capable

U.S. DELEGATES—*Members of the U.S. delegation to the Washington Diplomatic Conference included, from left, Harvey J. Winter, Acting Chief, Business Practices Division, State Department; U.S. Patents Commissioner William E. Schuyler, Jr., and George Clark, General Patent Counsel, Sunbeam Corp.*

of keeping pace with current world-wide technology, but which are attempting to increase their technological base by developing a sound patent system to attract foreign capital and know-how, may find this provision of particular benefit.

Finally, a new chapter was added to the treaty at the Conference which should be of benefit to developing nations by providing technical information with respect to published patents and patent applications. A Committee of Technical Assistance is to organize and supervise technical assistance for developing countries to improve their patent offices.

Paris Union nations participating in the conference were Algeria, Argentina, Australia, Austria, Belgium, Brazil, Canada, Central African Republic, Congo (Popular Republic), Denmark, Finland, France, West Germany, the Holy See, Hungary, Indonesia, Iran, Ireland, Israel, Italy, Ivory Coast, Japan, Luxembourg, Madagascar, Malta, Monaco, Netherlands, Niger, Norway, Philippines, Poland, Portugal, Rumania, South Africa, Soviet Union, Spain, Sweden, Switzerland, Togo, Uganda, United Arab Republic, United Kingdom, United States of America, Uruguay, Yugoslavia, and Zambia.

Attending as observers were the Paris Union nations of Mexico, Trinidad and Tobago, and Turkey, and the non-Paris Union nations of Barbados, Bolivia, Burundi, Chile, Republic of China, Costa Rica, Ghana, Guatemala, Jamaica, Republic of Korea, Laos, Libya, Malaysia, Nicaragua, Rwanda, Saudi Arabia, and Thailand.

Commerce Secretary Maurice H. Stans told conference delegates on the opening day, May 25:

"In the Patent Cooperation Treaty we see advantages for inventors, for businessmen, and for patent offices. We hope this treaty will serve to reduce duplication of effort on the part of both applicants and patent offices, thereby making it easier to secure the pro-

INTERNATIONAL ASSEMBLAGE—*Flags banked behind the dais signify the nations represented at the Washington Diplomatic Conference which met to consider the final draft of the Patent Cooperation Treaty. The Conference met at the U.S. State Department and culminated four years of negotiation.*

tection needed in the commercial markets where inventions will be utilized.

"Because the Treaty will facilitate worldwide availability of protection for industrial property, it will also contribute significantly to further development of international trade, which our government is pursuing diligently."

On the closing day, June 19, Secretary of State William Rogers also discussed the benefits to international trade and investment and added:

"In its technical aspects the treaty, doubtless, will be of principal interest to those concerned with the protection of industrial property around the world. But the treaty is more than a document to preserve the rights of inventors and to simplify the work of specialists in patent law and procedure. It represents another strand in the growing web of international understandings and contracts that is slowly but surely making our world a more civilized place and our relationships more productive of good for our peoples."

In addition to co-chairman Schuyler and Braderman, the U.S. delegation included: George Clark, General Patent Counsel, Sunbeam Corporation; Harvey J. Winter, Acting Chief, Business Practices Division, State Department; James W. Brennan, Patent Office; Edward F. McKie, Jr., patent attorney; Birch Swindler, patent attorney; Donald W. Banner, General Patent Counsel, Borg-Warner Corporation; Robert B. Benson, General Patent Attorney, Allis-Chalmers Corporation; H. Dieter Hoinkes, Patent Office; W. Brown Morton, Jr., patent attorney; Sylvia E. Nilsen, Deputy Assistant Legal Adviser, State Department; and William A. Smith III, Patent Office.

—Patent Office

Business Press Conclave To Be Held Dec. 7-8

DISCUSS CONFERENCE—*Charles S. Mill (left), New York, president of the American Business Press, was in Washington recently to discuss the upcoming conference with Secretary Stans.*

The United States Department of Commerce will join with American Business Press, Inc., the trade association for several hundred business publications, in a two-day conference Dec. 7-8 in Washington on trends in commerce and technology in the United States.

The conference, titled "What's Happening," was launched at a meeting of Secretary of Commerce Maurice H. Stans and Charles S. Mill, president of American Business Press. It is intended to give the publishers and editors a report from Administration spokesmen and an in-depth view of several areas of concern to the Department of Commerce.

Secretary Stans and two other members of the Cabinet, Secretary of Housing and Urban Development George W. Romney and Secretary of Transportation John A. Volpe, and Paul W. McCracken, Chairman of the Council of Economic Advisers, will address a plenary session Dec. 7.

The Dec. 8 program will be devoted to panel sessions presided over by Assistant Secretaries of Commerce and the Department's General Counsel.

The association has appointed a committee of editors to work with the conference planners in order to focus program content on subjects of greatest interest to its member publications.

In a bulletin to the membership, Mr. Mill said, "I am sure that you will be as enthusiastic as I am about (a) the all-out effort of the Administration for this meeting—a real tribute to our industry and (b) the potential for the meeting producing useful and worthwhile information for many of our people."

The meeting will be "unique" in the association's history, Mr. Mill added. "It provides an opportunity for the business press . . . to obtain first-hand information from top officials on current topics, geared especially to your interests."

Portions of the programs on both days will be reserved for questions-and-answers.

Headquarters for association members during the conference will be the Washington Hotel.

DOMESTIC BUSINESS REPORT

- Indian grants go 100 percent
- Golden girls will open in Boston
- Population on the move
- The affluent '80s
- Rise in housing units

Maritime Study May Yield Major Ecological Answers

The problems of oil spills, thermal pollution, and high transportation costs may be answered as a result of a Maritime Administration study on the construction of multi-purpose offshore terminals beginning December 1.

The three-part study will determine the economic and technical feasibility of offshore terminals around the United States to serve various regions. In addition, the development of such facilities are expected to:

- Reduce the cost of ocean transportation by opening U.S. foreign trade to "supersized" ships, those too large for current port facilities.
- Eliminate the possibility of thermal pollution of bays and rivers by nuclear power plants, since these could be located on the terminal island, where the heat generated could be dissipated in the ocean.
- Serve as receptacles for solid waste sewage, which could be used as fill for the offshore facility.
- Reduce the danger of oil pollution by ending the necessity for large tankers to transit narrow waterways, thus running the risk of grounding or collision, and by being designed for the efficient recovery of oil accidently discharged into the water at the terminal.

Estimated to require about a year, the first study will concentrate on identifying advanced technologies beyond the present "state of the art" to lower the costs of building and operating these facilities, as well as developing data on the geographic conditions favoring their use and their economic and financial implications.

The project's second phase will be devoted to specific development studies, resulting in contract specifications, necessary legislative proposals, and operating agreements among proposed users.

Construction and testing of one prototype terminal comprises the final part of the project.

—*Maritime Administration*

Agency For Economic Development To Expand Indian Grant Financing

"From this point on, all EDA-designated Indian reservations will be eligible for 100 percent public works grants, instead of what has been the maximum grant rate of 80 percent."

This announcement was made by Robert A. Podesta, Assistant Secretary of Commerce for Economic Development, during a three-day seminar, sponsored last month by EDA and the Office of Economic Opportunity for more than 150 Indian reservation development specialists at Rudioso, New Mexico.

One of the objectives of the new 100 percent EDA grant program for the Indian reservations is to help tribes which until now were precluded from the agency's public works programs. Previously, Indians were required to contribute 20 percent towards the public works grants that would spell progress for their people. Many tribes were often unable to meet this requirement because of the poverty prevalent on most reservations, and had to approach EDA for business development loans to complete the funding of proposed projects.

The Executive Director of the National Council of Indian Opportunity, Robert Robertson, says that this new policy of EDA on making 100 percent public works grants to Indian reservations "is commendable action by the Commerce Department."

"Certainly," he says, "it strongly supports President Nixon's statement to Congress on Federal aid to the Indians, providing them with all possible resources to enable the reservations to become self-determinate."

Says Fred R. Heckman, Tribal Development Officer for the Mescalero Apache reservation in New Mexico, "The 100 percent public works grant program is a godsend—particularly to the little reservations which until now have had

Robert Podesta & Wendell Chino

nothing to contribute towards obtaining an EDA grant. The little guy will now have a chance at building roads, putting in sewers and improving water facilities."

Heckman goes on to say that the President of the Mescalero Apache, Wendell Chino, has gone on record with the statement that of all the agencies which work with Indians, EDA has been the catalyst for the development of Indian reservations during the past decade.

EDA is currently involved in the Mescalero Apache reservation tourism development program, a three-year program designed to make the reservation completely self-supporting.

—Economic Development Administration

Industrialist Leads Bicentennial Group, Sets Tempo For '76

Enlisting the enthusiasm and support of every American in the nation's 200th anniversary observance is the objective of New York industrialist David J. Mahoney, newly appointed chairman of the American Revolutionary Bicentennial Commission.

Pledging to keep moving forward to 1976, Mahoney set the goals of his tenure as chairman at his first Bicentennial Commission meeting last month as successor to Dr. J. E. Wallace Sterling. Dr. Sterling will become chairman emeritus and remain a member of the Commission.

"The revolutionary spirit that brought this nation into being has never been more needed than it is today," says the new chairman, "The American experience is a continuing revolution in the most uplifting sense of the word, and I hope to build on the foundation of the Commission's first report in enlisting the enthusiasm and support of every American."

The Commission's report is a broad outline for the celebration of the birth of the nation. The observance is designed to be national in scope, with Philadelphia the focal point for an international exposition. The Department of Commerce's U.S. Expositions staff, which has the principal responsibility for expositions in the United States, is working closely with Mahoney on the exposition phase of the bicentennial.

"Mr. Mahoney's skills in organization and management came through strongly in his first meeting as chairman of the Commission in October," says J. William Nelson, director of the U.S. Expositions staff and departmental representative on the Commission.

Mahoney, 47, is chairman of the board and president of Norton Simon Inc., a diversified company. In addition to directorships in various organizations and companies, he is chairman of the board of trustees of the American Health Foundation; chairman of the Industry Committee of the President's Commission on Health, and chairman of the President's Committee on Personnel Interchanges.

—U.S. Expositions

VALUABLE CONTRIBUTION—*Known as "Golden Girls" because of their bright yellow uniforms and blue capes, these students met and assisted foreign visitors arriving at New York's John F. Kennedy International Airport last summer. It's part of the joint U.S. Travel Service—Office of Education—Port of New York Authority pilot program to expand reception facilities at the nation's point of entry. From left to right: Alda Tavares, Wagner College, Staten Island, N.Y.; Kathy Taylor, Cheyney State College, Pa.; Eleanor Jenkins, New York University; Tanya Kuhlmann, Westchester State, Pa.; Debra Huff, Kalamazoo College, Mich.; Isabel Julia, Long Island University; Camille DiBernardo, Potsdam State College, N.Y., Guerda Edeline, Goucher College, Md.; Linda Pellicane, St. Johns U., N.Y.; Rose Tanzi, also of St. Johns, Cathy Himmilberger, Indiana U. of Pennsylvania; Laura Davis, Eastern Michigan U.; Mary Jo Lawler, Indiana U. of Pennsylvania. Kennedy International Airport has made the "Golden Girls" a permanent service.*

New 'Golden Girls' To Help Bridge Language Gap

Originally planned as a summer service, a multi-lingual student receptionist program, initiated by Commerce's United States Travel Service, the Office of Education and the Port of New York Authority, has been adopted as a permanent feature at New York's John F. Kennedy International Airport.

A corps of 38 bi-lingual American college girls participated in the test project last summer at Kennedy. Called "Golden Girls" because of their bright yellow uniforms, the students greeted foreign visitors and offered them language assistance in clearing entry formalities and making transportation connections and hotel accommodations. The girls spoke Arabic, French, Russian, German, Spanish, Polish, Hungarian, Portuguese and Italian.

Although Kennedy has maintained a staff of nine girls to assist foreign-language visitors, the influx of 1.4 million foreign passengers last year was the principle factor behind the establishment of the "Golden Girls" program. As a result, the airport has hired 22 new students to continue the service, and is actively recruiting more.

C. Langhorne Washburn, director of the United States Travel Service, the sponsoring agency, said he has been pleased with the results.

"The girls selected for this work," he said, "are making a valuable contribution to the country's image abroad and to international understanding."

"Golden Girls" will become a familiar sight at another international facility in 1971. Because of the effectiveness of the Kennedy program, USTS and the Massachusetts Port Authority are planning to offer the service at Logan International Airport in Boston next summer.

—*United States Travel Service*

POINTS WEST—*Figures show how the center of population has moved westward since the first U.S. census was taken in 1790.*

Where Is 1970 U.S. Population Center?

Is the center of population still moving west? And where will be it by 1999? The Census Bureau can only project where the population center will be in the future, but next year it will pinpoint the exact location of the 1970 center of the U.S. population.

The center of population is described as the center of population gravity or the balance points of the U.S. population. If the United States were a flat plane with no weight, and if every person weighed the same, the center of population, officials pointed out, is the point at which the plane would balance.

From 1790, when the first U.S. decennial census was taken, to 1960, the center of population moved from east of Baltimore to near Centralia, Ill., with stops in between.

The movement of the center has been steadily westward. In the 1950s it traveled 57 miles west and 16½ miles south. Eighteen miles of the westward movement and two miles of the move to the south were accounted for by the addition of Alaska and Hawaii to the union during this period.

Continuing movement

Indications from the 1970 population count point to a continued movement to the west and south, but the calculations by geographers in the Census Bureau cannot be carried out until final, official figures are computed.

The center moved from 23 miles east of Baltimore in 1790 to several miles west of that city and north of Washington, D.C., by 1800. Ten years later it had moved to a spot near Leesburg, Va., and for the next four censuses the center was in West Virginia.

Following the censuses of 1860 and 1870 the center was in Ohio, and by 1890 it had moved west and south across the Ohio River to near Covington, Ky. From that year to 1940 it continued its westward march across southern Indiana, and during the 1940s crossed the Wabash River into Illinois—near Olney.

Illinois claims the 1970 center of population. But with the 1970 migration pattern of people to the South (one-third of the U.S. population now lives in the South, according to preliminary census figures), only the final computations can answer whether the population is still surging westward, or whether it has backed up and taken a southerly dip.

—Census Bureau

Census Bureau Predicts Affluent 80s

Here comes Mr. Average American—15 years from today!

He's married and between 25 and 44 years old. He makes $15,000 a year, and his tax dollars, instead of supporting new elementary and high schools, are building new colleges and expanding existing ones. He lives on the fringes of the metropolitan areas—as far in the country as he can get and still commute to the city where he works.

Mrs. Average American also works. In the meantime, she is planning to have three children, but will probably have only two.

Their home, in a coastal area, is either a new high-rise apartment or a mobile home. But they are building a house, equipped with the latest appliances, and there will be two automobiles in their garage.

This profile of the future Mr. & Mrs. American is based on analysis of preliminary 1970 census figures, which project a slower population growth in the next 15 years.

As Dr. George H. Brown, Census Director, indicates, "We are going into the future in a country that is basically people oriented, with strong individualism, a free market, and a democratic society beset by many problems, but working them out in terms of human liberty and dignity. And in 1985 the U.S. will have far more affluence than any society has ever seen."

The affluent majority of 1985, however, will be a part of a total U.S. population, which is expected to be between 240-250 million.

A major observation of this population slowdown will be that the number of people in their 20s, 30s and early 40s will increase by 28 million, with one-third of the increase showing up in the 25-34 year range, placing the median age of a U.S. resident at 37, compared to 28 today.

This change in the age composition of the population will also mean marriages will increase. At present, there are about two million marriages each year; there may be 2.5 million per year by 1985. However, birth rates are expected to decline to 2.1 children per woman.

Based on this population analysis also comes the alert that the U.S. will need more colleges than secondary schools. It is estimated that the number of college students could rise from its present level of 7.5 million to 11.5 million in 1985.

Census experts think that the real income of the average American could grow by more than 100 percent during the next 15 years, from $8,600 to an annual income of $15,000. Most of this added purchasing power will occur in the 25-44 age group.

Census figures show that if the population movement to the suburbs continues, nearly half of our national population will be living in the suburban rings of the metropolitan areas in a decade and a half—today it is 28 percent.

Today, nearly 30 percent of all U.S. households own two cars, a figure that doubled during the 1960-1970 decade. The proportion of households with annual incomes of $15,000 and over owning two cars is now 63.1 percent.

The number of persons who are homeowners has jumped to 64 percent, and nearly 85 percent who annually make over $15,000 own their own homes. More than 40 percent of U.S. families have a clothes dryer today; 17.3 own dishwashers; and 37.8 own color TVs. With more to spend in the future, these percentages could only rise.

One thing is certain—if these projections prove to be true, the 1980s will be the affluent society!

—Census Bureau

FYI

On Monday, Nov. 16, the Census Bureau projected the U.S. population, including the Armed Forces overseas, to be 206,329,428.

—Census Bureau

Rise In Housing Units Tops Population Gain

The increase in the number of housing units in the United States in the past decade is 6 percent greater than the increase shown in the latest population count (*Commerce Today*, Oct. 19). Even those states which indicate a population loss, are showing an increase in the number of housing units.

These facts and others concerning the nation's supply of housing units are being developed from 1970 census data.

In West Virginia, which shows the largest population loss (nearly 160,000 left the State since 1960), the number of housing units increased by 3 percent.

In Nevada, which can claim the highest percent population gain in the nation (68.9 since the 1960 census), the number of houses and apartments has grown 70.1 percent.

Arizona and Florida, which jumped almost 35 percent in their respective population counts, show corresponding increases in their living units. Arizona soared 41.9 percent; Florida, 43.4 percent.

The nation's 1969 rental vacancy rate (5 percent) and the homeowner vacancy rate (.9 percent) were the lowest of the decade.

Homeownership is also on the upswing. Nearly 64 percent of the families in the nation now own the home in which they are living.

To many, the increase in the number of housing units may be considered an anomaly since population statistics point to a slowdown in U.S. population growth. However, census figures show that young persons are leaving home earlier and setting up homes of their own, and older persons are living by themselves instead of moving in with their children—both of which may be attributed to the general rise in family income.

Virginia's population is up 14.5 percent, but the State has nearly doubled its housing increase—27.5

THE 1970 CENSUS HOUSING UNIT SCOREBOARD

Rank Prelim. 1970	Rank Final 1960	State	1970 preliminary Housing Count	1960 Final Housing Count	Change, 1960 to 1970 Number	Change, 1960 to 1970 Percent
		United States	68,696,099	58,326,357	10,369,742	17.8
22	21	Alabama	1,111,133	967,466	143,667	14.8
50	50	Alaska	89,981	67,193	22,788	33.9
33	35	Arizona	590,030	415,834	174,196	41.9
32	32	Arkansas	671,398	586,552	84,846	14.5
1	2	California	7,028,330	5,465,870	1,562,460	28.6
29	31	Colorado	760,677	594,522	166,155	27.9
24	25	Connecticut	984,906	818,544	166,362	20.3
46	46	Delaware	180,904	143,725	37,179	25.9
8	9	Florida	2,547,299	1,776,961	770,338	43.4
15	15	Georgia	1,456,251	1,170,039	286,212	24.5
44	45	Hawaii	214,221	165,506	48,715	29.4
42	42	Idaho	245,178	223,533	21,645	9.7
5	4	Illinois	3,701,346	3,275,799	425,547	13.0
11	11	Indiana	1,737,423	1,503,148	234,275	15.6
25	24	Iowa	962,142	905,295	56,847	6.3
28	27	Kansas	791,748	740,335	51,413	6.9
23	23	Kentucky	1,054,728	925,572	129,156	14.0
16	20	Louisiana	1,142,185	978,452	163,733	16.7
36	36	Maine	398,659	364,617	34,042	9.3
20	22	Maryland	1,246,502	934,552	311,950	33.4
10	10	Massachusetts	1,913,146	1,690,998	222,148	13.1
7	7	Michigan	2,966,372	2,548,792	417,580	16.4
19	17	Minnesota	1,274,294	1,119,271	155,023	13.9
31	29	Mississippi	688,554	628,945	59,609	9.5
12	12	Missouri	1,675,878	1,491,397	184,481	12.4
41	40	Montana	246,727	233,310	13,417	5.8
35	34	Nebraska	517,285	472,950	44,335	9.4
47	49	Nevada	172,869	101,623	71,246	70.1
40	41	New Hampshire	280,857	224,440	56,417	25.1
9	8	New Jersey	2,401,179	1,998,940	402,239	20.1
37	38	New Mexico	326,459	281,976	44,483	15.8
2	1	New York	6,333,318	5,695,880	637,438	11.2
13	13	North Carolina	1,622,512	1,322,957	299,555	22.6
45	44	North Dakota	204,392	194,597	9,795	5.0
6	6	Ohio	3,473,864	3,041,151	432,713	14.2
26	26	Oklahoma	934,863	815,685	119,178	14.6
30	30	Oregon	746,860	622,853	124,007	19.9
3	3	Pennsylvania	3,936,632	3,581,877	354,755	9.9
39	37	Rhode Island	318,502	286,757	31,745	11.1
27	28	South Carolina	806,009	678,379	127,630	18.8
43	43	South Dakota	226,057	216,449	9,608	4.4
18	18	Tennessee	1,289,673	1,084,365	205,308	18.9
4	5	Texas	3,818,099	3,153,127	664,972	21.1
38	39	Utah	316,961	262,670	54,291	20.7
48	47	Vermont	166,462	136,307	30,155	22.1
14	16	Virginia	1,490,395	1,168,913	321,482	27.5
21	19	Washington	1,221,817	1,009,519	212,298	21.0
34	33	West Virginia	589,569	574,357	15,212	2.6
17	14	Wisconsin	1,425,772	1,288,620	137,152	10.6
49	48	Wyoming	116,862	113,096	3,766	3.3
		District of Columbia	278,819	262,641	16,178	6.2

percent. Alabama's housing units are more than triple its population increase. So are Iowa's, Kansas', and Kentucky's.

The enormous gains in population and housing in Florida, Nevada and Arizona may be an outcome of the added dollars in the pockets of many U.S. residents. These states are taking the initiative in trying to capture this increased spending power by developing resort areas which, in turn, are attracting the tourist. Many come to visit and, later, return to stay.

New Field Director Plans Push Forward

"Bringing government closer to the people by working directly with the businessman and establishing a closer liaison with the college campuses" is the goal of Gerald M. Marks, new director of the Department of Commerce's field office in Chicago.

Marks, whose appointment to the Chicago field office directorship was announced by Secretary Stans Nov. 5, says he envisions a "challenging opportunity of really going out and bringing government to the people."

The 42-year-old former corporation president plans to use his background in the business world to expand the role the field office will play in helping to develop foreign and domestic commerce, and developing liaison with the college campuses through seminars.

Marks succeeds Anthony J. Buchar, who retired last April after nearly 40 years of government service. Richard L. Bronwell, chief of the field office's International Trade Division, served as acting director after Buchar's retirement.

Marks joins Commerce after 13 years as president of Illinois Lighting Associates Inc., a corporation he founded. He supervised and directed sales and engineering activities of the firm and handled financial and promotional matters. From December 1966 to December 1968 he served as trustee and chairman of the engineering committee of the Metropolitan Sanitation District of Chicago.

Marks received his bachelor of science degree in electrical engineering at the University of Illinois in 1950 and is a past president of the Chicago Chapter of the National Society of Professional Engineers.

He was Chicago district manager for Silva-A-King prior to forming his corporation.

—Bureau of Domestic Commerce

Calendar For Businessmen

Nov. 16 — Columbia, S.C. — Census User Conference. For information contact Mrs. Carolyn Reedy, U.S. Department of Commerce field office, 631 Federal Building, Charleston, S.C., 29403. Phone: 803-577-4361.

Nov. 17—Charlotte, N.C.—Census User Conference. For information contact Larry G. Owen, associate director of Institute for Urban Studies and Community Services, University of North Carolina at Charlotte, N.C., 28213. Phone: 704-596-5970.

Nov. 18-19 — Honolulu, Hawaii— Census User Conference. For information contact Hawaii Statewide Information System, Honolulu, Hawaii. Phone: 808-574-5719.

Nov. 19—Bismarck, N.D. — Indian Reservations Manpower Analysis Project. United Tribes Training Center. For information contact Gordon Aamoth, Economic Development Administration representative at Bismarck. Phone: 701-255-4321.

Nov. 21—Atlantic City, N.J.—Dedication ceremonies for new wing of convention hall. Representatives of trade associations throughout the United States will attend.

Dec. 1-2—Washington, D.C.—Appalachian Regional Commission meeting. For information contact ARC public relations office. Phone: 202-967-5728.

Dec. 8—Washington, D.C.—American Business Press Conference, U.S. Department of Commerce Auditorium.

Jan. 23-29 — Sydney, Australia — Visit USA World Tourism Seminar sponsored by United States Travel Service.

Minority Program Assistance Listed In Commerce Directory

In Cleveland, Ohio, there are 19 private business programs established to help minorities. Thirty-three national organizations can also be called on for minority assistance, and 14 national technical and management programs stand ready to lend their advice to blacks and other minorities living in the area who want to own their own businesses.

The names of these organizations and the type of assistance they can offer minority entrepreneurs can be found in the newly revised 1970 "Directory of Private Programs Assisting Minority Business," a publication of the Department's Office of Minority Business Enterprise. The directory is widely used by community planners and businessmen involved in helping minority-owned business enterprises to succeed.

Identifies What's Available

Identifying the type of private assistance available in the U.S. for minority businessmen, together with specialized Federal government and existing municipally sponsored programs, the updated directory provides information concerning private minority business assistance programs in 59 cities; municipal programs in 15 cities; 33 national organizations; 14 national technical and management assistance programs; and minority-owned financial institutions, including 27 banks and 39 savings and loan institutions. An appendix lists 27 minority business directories currently available.

The directory, part of OMBE's information effort, is printed by a minority-owned Kansas City, Mo. firm, Lithon Color Press. It may be purchased for $2.50 from the Government Printing Office, Superintendent of Documents, Washington, D.C. 20402.

—Office of Minority Business Enterprise

SCIENCE & TECHNOLOGY REPORT

- NBS research seeks safer automobiles
- New NOAA satellite to improve weather forecasting
- Tribus challenges instrument makers
- Patents of special interest

NBS Research Seeks Safer Automobiles During '70s

Automotive safety in this country can be expected to be greatly influenced and, hopefully, improved during the coming decade by an important program currently under way at Commerce's National Bureau of Standards to establish standards and develop test methods for automobile occupant restraint systems.

Sponsored by the U.S. Department of Transportation, this program is designed to provide DOT's National Highway Safety Bureau data by which the Bureau can update Federal automotive standards. It is directed by Richard W. Armstrong of NBS's Office of Vehicle Systems Research.

However, this is not the first time that NBS has turned its attention to this particular problem. Early NBS occupant restraint research was devoted to testing seatbelts under Federal legislation effective in December 1965. The current program is devoted to an entire restraint system including lap belt assembly, torso restraints, the car seat and anchorages.

In the earlier program, webbing and buckles were tested for various characteristics separately and the assembled seatbelt with attachment hardware was tested for strength. The specifications for webbing resulting from this work included requirements for resistance to abrasion, degradation by light, mildew damage, color change, and color transfer to clothing.

An obvious test is for webbing strength. This is measured by a tensile test machine that is instrumented to yield data on stretching force and displacement. Webbing is tested intact and after being subjected to simulated usage.

For example, a test is conducted to determine abrasion of the webbing at the buckle owing to repeated adjustment, which can re-

DUST CHAMBER—*How well seatbelt retractors hold up in a dusty or sandy area is found by operating them in a dust chamber. Claude Melton actuates three retractors under test. Salt spray chamber in background evaluates corrosion.*

duce seatbelt strength to dangerous levels in only six months if webbing and buckle are not properly designed. The webbing strength is determined in the laboratory by tensile test after abrasion preconditioning by a device designed at NBS. A new standard resulting from the findings of the abrasion tests has been adopted by industry, resulting in improved webbing and adjustment devices that are free from this problem.

Seatbelt webbing of manmade fibers such as nylon may be seriously degraded by the ultraviolet radiation in sunlight. Specifications limiting this degradation are now found in all seatbelt standards. Degradation is tested by subjecting webbing to radiation from a carbon arc for a certain duration and then measuring webbing breaking strength. The degradation resulting can reduce webbing strength as much as 60 percent.

There is also a need to test webbing and hardware under simulated temperatures and humidities spanning those encountered throughout North America.

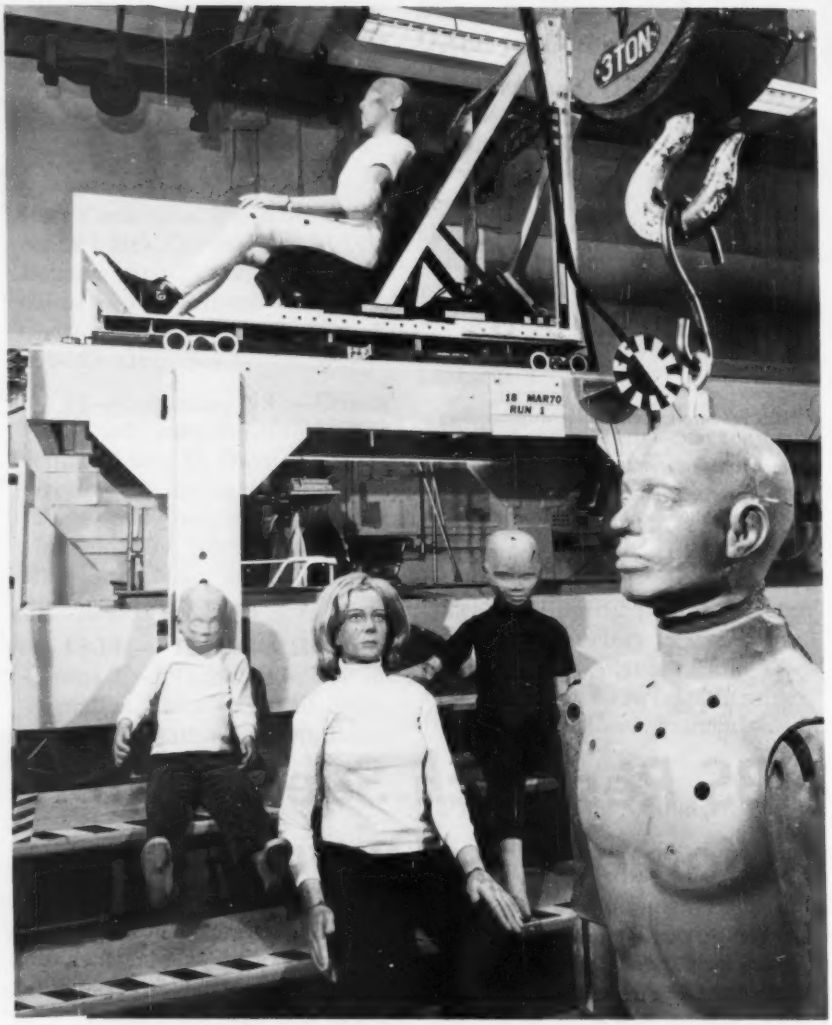
Humidity has been found to accelerate abrasion degradation and thus lower webbing strength. The Bureau devised an inexpensive humidity chamber and mechanical abrader to measure this and more recently has installed a walk-in environmental chamber for a variety of tests. The interior can be maintained at temperatures from zero to 60 degrees C. and relative humidities from five to 95 per cent.

In areas where chemicals are used to melt snow, auto passengers track the chemical solutions inside the car and they are absorbed by the floor matting creating corrosion of the metal seatbelt parts. NBS is evaluating these problems and establishing performance criteria for seatbelt hardware by using a salt spray test chamber.

Mechanical characteristics of the buckle are also being evaluated to develop standard specifications. Consideration must be given to resistance to mechanical failure, ability to withstand repeated latch-and-release operations, the upper limit of force required to release the buckle when under tension such as when holding an occupant inside a turned-over vehicle, and crush resistance, simulating being caught in a door or in the hinge of a seat.

Seatbelt retractors, which function to store webbing and in addition may adjust length or automatically lock up on impact, are subject to the same humidity, temperature, and corrosion tests as other hardware. In addition, they are exposed to endurance cycling tests both in and out of a dust chamber to determine wear on the bearings and the possibility of the mechanism being clogged by dirt.

In order to test the entire restraint system, NBS designed a sled apparatus for dynamic testing. It provides a crash impulse by rapidly snatching the sled backwards, which has the same effect as stopping a forward-moving sled or crashing an automobile. An extensive array of dummies of varying sizes and shapes are used in the test sleds to simulate passengers.



DUMMY VICTIMS—*This family of dummies has been developed at the National Bureau of Standards for use in a specially-designed sled which subjects each dummy to the same forces as would a crashing car. Data obtained from this occupant restraint program will be turned over to the Department of Transportation for its use in updating Federal automotive standards.*

Attention is also given to restraint systems for children. Restraining them is difficult because they don't have as defined and strong a bone structure as adults.

Earlier studies of dummy performance in automobile restraint systems disclosed that on sudden crashes they slouched down in the seat allowing the hips to ride down under the lap belt. High-speed sled tests at Holloman Air Force Base some years ago determined that humans did the same thing. The structure and material of the seat determined this response to a great extent.

In the present dynamic performance testing program, the Bureau is using dummies seated in currently produced automobile seats and secured by restraints anchored as in the cars. Data are obtained from transducers placed to sense forces in the seatbelts, on the seat, in the dummy's chest, and in its head. Also sensed are the acceleration and velocity of the sled and the displacement of the dummy's chest and pelvis, all of which are recorded with a time base on a stripchart and magnetic tape.

Motion picture film is also being used to record dummy movement and motion.

One decision to be made by NBS is where restraints can be placed and stored for access to the entire range of users. Standards already accepted by industry required that factory-installed seatbelts be capable of meeting system performance requirements when tested in the average location found in production car models. These locations are now known, since the Bureau has surveyed and reported on anchorage locations in all 358 current models of domestic automobiles.

While obtaining public acceptance of occupant restraints is not part of NBS' current program, design factors that make restraints difficult, uncomfortable, or inconvenient to use are of legitimate concern and are being studied in the present NBS program.

—*National Bureau of Standards*

TENSILE TESTING—*Dorian Sanders positions a seatbelt in a tensile test machine. Records of seatbelt elongation and loading from this machine are used to establish the basic strength characteristics of seatbelts and to determine their performance after degradation from abrasion, sunlight and other elements.*

HUMAN ENGINEERING—*Johnathan Haines hands an upper torso strap to Mattie Johnson, who is seated in a device that can be adjusted to simulate the seat and occupant restraint geometry of any automobile. Specially developed devices such as this seat are useful in studying human engineering aspects of auto safety.*

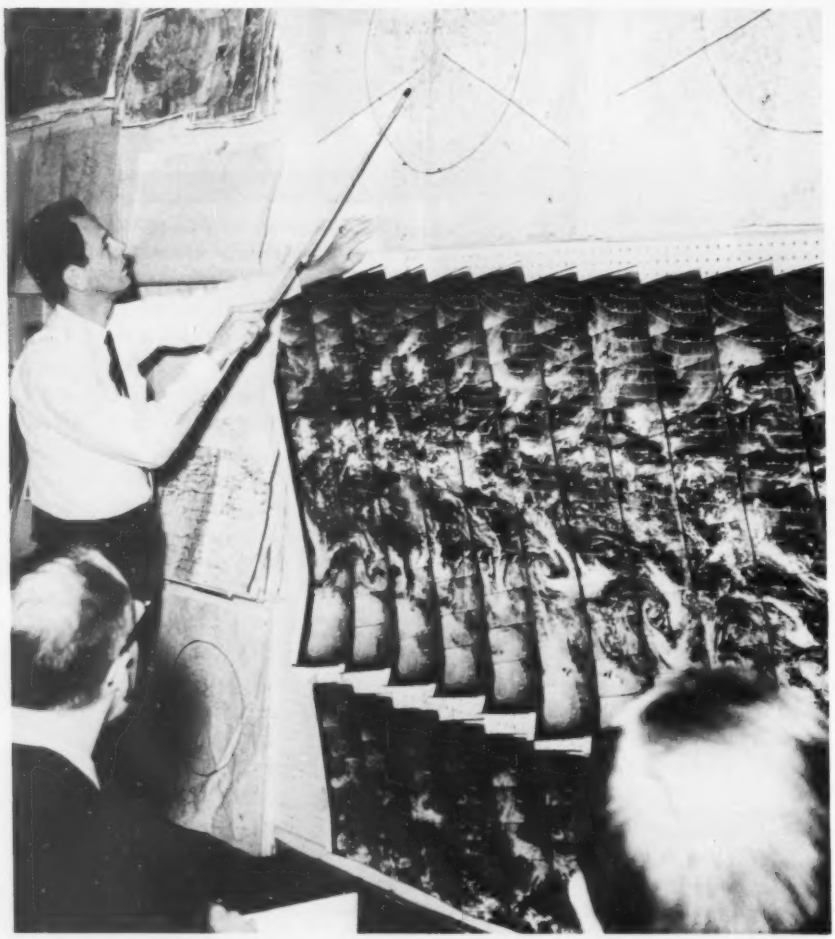
New NOAA-1 Satellite To Improve Global Weather Forecasting; Advanced Cameras Double Earth Coverage Formerly Provided

National Weather Service forecasting will be assisted by the launching expected next month of NOAA-1, the first Improved TIROS Operational Satellite. It is to be launched from the Western Test Range, Lompoc, Calif. by the National Aeronautics and Space Administration for Commerce's National Oceanic and Atmospheric Administration.

NOAA-1 makes nighttime satellite observations available to the National Weather Service forecast offices throughout the nation for use in preparing early morning forecasts. The entire globe will be observed twice each day by both stored and direct readout systems, doubling the coverage formerly provided by operational weather satellites.

Operating approximately 910 miles above the earth, the ITOS spacecraft is the first NOAA satellite in the Improved TIROS Operational Satellite system managed and operated by the National Environmental Satellite Service of NOAA. Its prototype, NASA's TIROS M (ITOS-1), was launched January 23, 1970, and turned over to the Satellite Service June 15 for operational use.

NEW WEATHER EYE—*Scheduled to orbit more than 900 miles in space, this 682-pound box-like NOAA-1 weather satellite is the first National Oceanic and Atmospheric Administration spacecraft in the Improved TIROS Satellite system.*



SATELLITE FORECASTS—*Map discussions are a way of life at the Weather Service's National Meteorological Center at Suitland, Md. Here extensive use is made of global satellite data such as NOAA-1 will provide in preparing weather forecasts.*

The spacecraft contains four camera systems. Two are for global picture coverage of the earth's weather and two for immediate transmission of cloud photographs directly to receiving stations around the world. These Advanced Vidicon Camera Systems (AVCS) and Automatic Picture Transmission (APT) systems proved their reliability and effectiveness in the ESSA spacecraft of the earlier TIROS Operational Satellite system.

Instrumentation of the new ITOS includes scanning radiometer systems that provide data in both visible and infrared channels. The visible channel is an alternate source of daytime cloud pictures. The infrared channel provides cloud pictures at night as well as during the day.

The scanning radiometer also measures surface temperatures in cloud-free areas. NOAA's Satellite

Service has developed a technique for preparing global maps of sea-surface temperatures from satellite infrared measurements, and expects to begin issuing such maps on a routine basis in 1971.

Unlike previous operational vehicles, ITOS is large enough to house additional environmental sensors. This first NOAA spacecraft, for example, contains a flat plate radiometer to provide data on the earth's heat balance, and a solar proton monitor to detect the arrival of energetic solar protons in the vicinity of earth. Solar proton data will be processed by the National Environmental Satellite Service and transmitted to NOAA's Space Disturbances Laboratory at Boulder, Colo., for use in issuing warnings of solar storms.

Since it was established by the former Environmental Science Services Administration in 1966, the operational satellite system has provided a routine service of weather observations over the entire earth every day.

Worldwide Reception

Photographs transmitted by the Automatic Picture Transmission systems are received by more than 500 specially-equipped ground stations around the world for use in issuing local forecasts and warnings for the public and for aviation, marine, agricultural, and other interests. Pictures taken by the Advanced Vidicon Camera System are stored for readout by NOAA's Command and Data Acquisition stations at Fairbanks, Alaska, and Wallops Station, Va., and transmission to National Environmental Satellite Service headquarters at Suitland, Md. At this facility, the picture signals are converted into digital mosaics and transmitted in this form on NOAA Weather Service communications systems to weather stations throughout the nation.

The Weather Service's National Meteorological Center, also located at Suitland, Md., makes extensive use of global satellite data in preparing hemispheric weather analyses and forecasts for dissemination to field offices.

NOAA-1 will be launched by a two-stage Delta N produced by McDonnell Douglas Corp. It is made up of a modified Air Force Thor liquid rocket first stage with six strap-on solid rockets produced by Thiokol Chemical Corp. Rocketdyne Division of North American Rockwell provided the first stage engines. Second stage propulsion was produced by Aerojet General.

Astro Electronics Division of RCA produced the spacecraft. Major contractors for the autopilot were Honeywell, Texas Instruments, and Electro-solids Corp.

—NOAA

Tribus Challenges Instrument Makers To Meet Critical Measurement Needs

"The challenge will be to develop the precision instruments to conduct action programs for pollution measurement and control and recycling systems," declared Dr. Myron Tribus, Assistant Secretary of Commerce for Science and Technology at a recent conference of the Instrument Society of America meeting in Philadelphia, Pa.

Dr. Tribus listed 11 areas where "critical needs for better measurement" exist, including:

- "Accurate measurement of time and frequency. The more accurately you can measure a carrier wave, the higher the carrier frequency, the more information you can transmit. Improvement in the precision of our clocks will be necessary to achieve maximum transmission of signal information, such as computerized information, from one station to another or in the development of foolproof aircraft avoidance systems.
- "Metrology. If we had more precise grids for such applications as computer-controlled machine tools, we could improve the precision of the tools and reduce the trial and error methods now used in some manufacturing steps.
- "Satellite tracking. The position of a satellite is determined by the time it takes light to travel between the satellite and, for example, three points on earth. Hence precision tracking depends upon precise timing of the signals,

Dr. Myron Tribus

in which we need substantial improvement.

- "Map reading. Two-dimensional grids are not precise enough to permit accurate location of geographic features.
- "Medical measurements. Medical technology is constantly improving, of course. The Standard Reference Materials program of the National Bureau of Standards has recently contributed to improved measurements of the bilirubin content, the blood count by which an obstetrician determines how well the liver of a new-born baby is functioning. But many other clinical tests are crude, and clinical

and testing laboratories need a wide variety of improvements in instrumentation.

• "Nuclear power. Improvements are needed in measuring cross-sections and neutron flux densities to analyze the characteristics of breeder and other power reactors.

• "Accurate stratospheric temperatures. We'd like to know whether the stratosphere is warming or cooling over a period such as 10 years. Since the temperature change is expected to be small, the sensor would have a tolerance of the order of 0.1 degree Centigrade.

• "Indirect sensors. Why doesn't somebody provide an inexpensive, indirect system for sensing from the ground?

• "Techniques for monitoring particulates and gases in the stratosphere. We can, of course, determine the presence or absence of particles but not so easily their size or optical properties. We need methods for monitoring sulfur oxides, oxides of nitrogen, and hydrocarbons. Such techniques are needed now because of pollution of the stratosphere from volcanoes; they will be needed even more when SST's begin flying.

• "Means of measuring vertical fluxes of pollutants. We have no instruments now to measure these at low levels.

• "Techniques for measuring albedo. What are the integrated effects of cloudiness on long-term climatic changes? Many investigators feel that a one percent increase in the earth's albedo, its reflection surface characteristics, will cause a 1.8 degree Fahrenheit decrease in average surface temperature."

Citing the need for more critical measurement techniques, Dr. Tribus said that "the ability of various levels of government to exercise their responsibilities to monitor health standards depends critically on the ability to make measurements, in place, that will stand up in court."

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

—A water-quality monitor. The "Colorimeter" indicates the organic-material content of water in municipal supplies, rivers and treatment plants. Ultraviolet light is focused through the round end of a test tube onto a photocell at the other end, as water flows through. Another cell compensates for any changes in the light intensity. The organic content indicated lets municipalities and industries monitor the effectiveness of their treatment and filtration processes. Patent No. 3,535,044 was issued to Harold H. Seward of Arlington, Mass. and is assigned to Aqua Test Corporation of Arlington, Mass. The patent is one of the first to be issued under the Patent Office's program of expediting action on environmental inventions.

—A learning aid that promotes concentration. The device, a goggle-like eyeshield, restricts the field of vision to the matter being studied. There is also a sound generator and ear pieces with the goggles. A steady, low level signal protects the user from audible distractions and enables him to give quick and deep attention to the subject at hand. Patent 3,534,484 was issued to Paul E. Sumter and assigned to Iowa State University Research Foundation, Ames, Iowa.

—A think tank for corporate executives. The room-size think tank will allow visual display of the many options open to management in decision-making. Transparent file folders carry pictures, images, diagrams, charts, letters or photographs of other executives subject to transfer. Any of the materials can be enlarged and projected. The files can be pulled out of open front cabinets and attached to display boards. The most active files are stored in an internally illuminated console. The invention creates a total environment for decision-making not dominated by a computer or the work of an interior decorator. Patent 3,528,715 was issued to Paul G. Williams, Jr. of Westport, Conn. and was assigned to the Williams Inlan Corporation.

—A shrimp processor. A machine called Sea Trim deheads, deveins, deshells and grades the shrimp aboard ship after the net is pulled in. Formerly, the shrimp had to be deheaded, iced and then processed ashore. Patent No. 3,528,125 was issued to J. Meredith Jones of Edenton, N.C., and assigned to General Tool Company, Inc.

Abstracts and drawings of patents are published as they are issued in the Official Gazette of the United States Patent Office, *each Tuesday. About 1,400 patents are issued each week. Copies of the* Official Gazette *may be obtained from the Superintendent of Documents, Government Printing Office.*

Science Calendar

Nov. 30-Dec. 2—Gaithersburg, Md. —National Bureau of Standards, Symposium on the Application of Computers to Environmental Engineering Design. Cosponsor: American Society of Heating, Refrigerating and Air Conditioning Engineers.

May 10-14, 1971 — Gaithersburg, Md.—National Bureau of Standards, Flow — Its Measurement and Control in Science and Industry. Cosponsors: American Institute of Physics, American Society of Mechanical Engineers, Instrument Society of America.

June 16-18, 1971 — Gaithersburg, Md.—National Bureau of Standards, Summer Symposium in Analytical Chemistry. Cosponsor: American Chemical Society.

NOVEMBER 16, 1970

International Commerce

- Romania business prospects explored
- Presidential export awards given
- Trade trends around the world
- New Eximbank procedures announced
- World trade leads: more than 240 detailed

A Banner Activity: Sales By U.S. Firms' Foreign Affiliates

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International Trade Winds

Company News

TRANSPORT EQUIPMENT—Fruehauf International Ltd. of Detroit announced that production is underway at its newest licensee, Prati-Vazquez, S.A. of Buenos Aires. The Argentine firm, a manufacturer and supplier of trailers and automotive equipment, plans to double its production capacity to accommodate the new lines of over-the-road equipment. Products will be marketed under the name Prati-Fruehauf.

INDUSTRIAL FURNACES—Rust Furnace Co., division of Litton Industries, Inc., Pittsburgh, received a contract from ACINDAR (Industria Argentina de Aceros S.A.), Buenos Aires, to furnish engineering, design and detail drawings for a continuous billet heating furnace. The equipment will be installed in a new rod mill to be constructed at Igeniero, Acevedo's plant in Villa Constitucion, Argentina.

CONSTRUCTION — Combustion Equipment Associates, Inc., New York, the Fuller Co., Catasauqua, Pa., and Arthur G. McKee & Co., Cleveland, are participating in the Black Sea Copper Works in Samsum, Turkey. Combustion Engineering will design and construct equipment to cool and clean 230,000 cubic feet per minute of copper converter and smelter gases. The system will stop gaseous sulphur dioxide and solid particles from escaping into the atmosphere. The sulphur dioxide content of the cleaned gas will be used in manufacturing sulphuric acid, which will be utilized in making fertilizer needed in Turkey. Fuller will provide two copper converters and a holding furnace for the smelter of Ankara-based Karadeniz Bakir Islemeleri A.S., designed to handle 40,000 tons per year of blister copper. McKee & Co. is the consulting engineer for the project.

PAPER PRODUCTS — Kimberly-Clark Corp., Neenah, Wis., has formed a joint venture with YuHan Corp., a major pharmaceutical company in South Korea. The new firm, YuHan-Kimberly Ltd., will produce facial and other household paper products.

INDUSTRIAL GASES — Gas Atmospheres of Alco Standard Co., Cleveland, has licensed W. C. Holmes Co., Ltd., Huddersfield, Yorkshire, England, to manufacture and market nitrogen and hydrogen gas generating equipment. The Holmes firm will have exclusive rights in the U.K. for the equipment developed by Gas Atmospheres. Working from engineering specifications and data supplied by the U.S. company, Holmes will produce equipment of the same types and sizes now made by Gas Atmospheres in this country.

Newsmemo

Getting youth involved in a youthful business was part of the action at Commerce's Interocean '70 exhibition just concluded at Duesseldorf, Germany. The show of U.S. oceanographic equipment was accompanied by an international congress that drew top-rank professionals from all over Western Europe. Among the papers they heard were four by U.S. technical students recruited in a nationwide competition by Commerce's trade specialists and brought to Germany by the German NOWEA fair authorities.

Walk-in trade opportunities. The term aptly describes the Visiting Buyers and Officials column in this magazine. Recently a South African engineer visited the U.S. to see the latest developments in food packaging and freezing equipment. A notice of his visit in our column brought a number of inquiries that led to his initial purchase of U.S. equipment worth $90,000.

Shifts in international corporate planning continue to bring new headquarters operations to Coral Gables, Fla. The community neighboring on Miami this month welcomed an export office for Greenlee Tool, a unit of the Excello Corp. In recent weeks ITT Western Hemisphere Directories and Seagram's have announced Coral Gables sites. Some 30 U.S. corporations now direct their export and offshore operations from the city, pointing up the fact that the best "foreign" communications-transport-language hubs for U.S. business may often be within this country.

First such group to visit Africa—this was the distinction of the Commerce-organized specialized trade mission that held business discussions in Accra, Ghana, Lagos, Nigeria, and Kinshasa, The Congo, in recent weeks. The mission included seven U.S. business leaders representing a broad range of agricultural development equipment and products.

A tip on quality maintenance in world markets from the A. W. Chesterton Co., which makes mechanical packing and seals. Three years ago Chesterton began week-long courses in the principles and mechanics of sealing for its overseas distributors and plant operating personnel. The company's experience has been that such courses build sales and quality standards and that best attendance was achieved at courses held in conjunction with incentive trips. So this year the classes at Woburn, Mass. headquarters will be followed a week later by leisure travel to Western Hemisphere resort areas.

NOTE: This column previews or underlines special aspects of world trade developments, with a particular focus on Bureau of International Commerce export and investment promotions. It is not intended to substitute for the detailed reporting and analysis in our regular news columns.

Sales By Affiliates Abroad Continuing Sharp Uptrend

Sales of foreign manufacturing affiliates of U.S. companies continue on an upward curve, with a 100 percent increase shown in the latest five-year reporting period.

In the last year for which reports are available—1968—the annual increase in such sales amounted to 12 percent, and reached a total of $59.7 billion. Within this total, sales to the U.S. amounted to $4.7 billion.

Reflected in these figures are the sales of all foreign manufacturing and mining affiliates in which U.S. owners hold direct equity interest of 25 percent or more. Data are collected annually by the Commerce Department's Office of Business Economics from a sample of 500 major U.S. parent firms.

Affiliates in Western Europe accounted for 43 percent of total sales in 1968. Sales by Canadian affiliates amounted to 31 percent, and the Latin American share was 13 percent. Sales of affiliates in all other areas also amounted to 13 percent of the total. These proportions have not changed much since 1965, although there has been a shift in sales destinations.

Canada Imports Grow

In 1968, the $4.7 billion or 8 percent of affiliates' total sales mentioned above as exports to the U.S. compared with $1.8 billion or 4 percent of such sales figures in 1965. However, the shift largely reflected the U.S.-Canadian automotive agreement of 1965 which encouraged U.S. automakers to produce automobiles and parts in Canada for sale in the U.S.

Exports to the U.S. from Canadian affiliates manufacturing transportation equipment amounted to $2.2 billion in 1968, 11 times greater than in 1965. Excluding sales of Canadian affiliates manufacturing transportation equipment, the world figure of affiliates' sales to the U.S. in 1968 amounted to $2.5 billion—a 4.6 percent share, only moderately above the 4.1 percent share in 1965.

Sales of all U.S. manufacturing affiliates in Canada rose 12 percent in 1968 to $18.5 billion. Manufacturers of transportation equipment there increased their sales by more than 20 percent to $5.7 billion, with 40 percent of the sales going to the United States. All other Canadian manufacturing affiliates registered an 8 percent sales gain.

In Western Europe, total sales of foreign manufacturing affiliates rose 12 percent to $25.8 billion in 1968, a rate of growth slightly higher than the 11 percent average annual increase in the preceding two years. Strong growth was registered in the Common Market countries with a rise of 16 percent to $13.9 billion. A considerably slower rise was recorded by affiliates in the United Kingdom, with an increase of only 4 percent to $9.6 billion. However, this slowdown largely reflected the devaluation of the British pound in the fall of 1967 which lowered the dollar value of 1968 sales of affiliates operating in the United Kingdom.

Latin American affiliates increased sales by 12 percent in 1968, somewhat below the average annual increase of 14 percent in the earlier two years. Sales by affiliates in Brazil, Mexico, and Venezuela have risen substantially since 1965, but 1968 growth was decidedly slower than the average rise for the preceding two years.

In Asia and Africa, sales of affiliates rose 15 percent to $7.3 billion, with most of the increase registered in Australia and Japan. Growth in Japan has been particularly strong in recent years and sales by affiliates there doubled during the years 1966-'68.

All Share In Expansion

All major manufacturing industries have shared in the substantial growth of affiliates' sales since 1965. Sales by affiliates in the chemical industry reached $10.2 billion in 1968, an increase of 15 percent for the year. Manufacturers of primary and fabricated metals also registered a 15 percent gain. For affiliates in both industries, the rate of expansion in 1968 was very close to the average annual increase in the preceding two years. Transportation equipment manufacturers continue to lead in total sales with $14.5 billion in 1968, an increase of 13 percent. Sales by manufacturers of nonelectrical machinery (including computers) rose 11 percent; the increase was considerably below the 19 percent average annual rise from 1965 to 1967.

Sales of U.S.-owned foreign mining affiliates rose 16 percent in 1968 to $5.3 billion. The increase was only slightly faster than the average annual growth rate in the preceding two years. Affiliates in Africa and Australia registered particularly strong increases, about double the industry rate in 1968, while Latin American affiliates increased sales only 5 percent. About 35 percent of all sales by mining affiliates in 1968 were exported to the U.S. and 43 percent, to third countries.

Additional details are available in the October issue of the *Survey of Current Business*, published by the Office of Business Economics.

Banners Of Business

Flags of many nations fly over the new world headquarters of the Badger Co. in Cambridge, Mass., in photo on page 35, symbolizing the countries in which the company and affiliates have offices. Badger, a Raytheon subsidiary, has completed more than 300 projects for the chemical industries of 20 nations since 1948.

Talks With Romania Head Offer Investment Promise

Hopes for improved East-West Commercial relations were expressed by Secretary of Commerce Maurice H. Stans when a communist head of state recently came for the first time in history to the heart of the capitalist system, the U.S. Department of Commerce.

Nicolae Ceausescu, President of the Socialist Republic of Romania, was the guest of honor at a luncheon hosted by Secretary Stans and attended by Department leaders and six giants of U.S. industry.

They discussed the possibilities of U.S. investment in Romania, cooperative joint business ventures, and expanded trade between the two countries. Afterward Secretary Stans commented:

"President Ceausescu and the American businessmen had a very productive meeting which I hope will lead to increased and improved commercial relations between Romania and the United States.

"In each area of our discussions there was common ground and mutual interest. It was a very encouraging exchange, although many things need to be discussed and worked out before results can be significantly measurable."

While in the U.S., President Ceausescu attended 25th anniversary events at the United Nations, and met with President Nixon.

His Oct. 27 luncheon with Secretary Stans brought the communist leader into personal discussion with these industrialists: Henry Ford; former Secretary of the Treasury Robert B. Anderson; John B. Gates, Chairman of Inter-Continental Hotels and Vice President of Pan American World Airways; Carl A. Gerstacker, Chairman of the Dow Chemical Co.; William H. Franklin of the Caterpillar Tractor Co.; and Arthur J. Santry, Combustion Engineering.

The matter of U.S. investment in cooperative joint ventures was initiated with Romanian officials last June when a Commerce Department mission headed by Harold B. Scott, Director of the Bureau of International Commerce, visited Romania. Scott, now Deputy Assistant Secretary for International Business, attended Secretary Stans' luncheon as did Under Secretary of Commerce Rocco C. Siciliano, and Robert McLellan, Assistant Secretary for Domestic and International Business.

Under the liberalized Export Administration Act of 1969, passed last year by the Congress, export controls on U.S. trade with Eastern Europe are now being reviewed, and more than 1,100 items have been removed from the restricted list. The review is about half completed. (See report in Nov. 2 issue of *Commerce Today*, page 37.)

Assistant Secretary McLellan, whose background before coming to the Commerce Department included extensive economic and commercial relations with the countries of Eastern Europe, said following the luncheon that the Romanian president fully understood the profit motive of the American system, and was anxious to assure returns on American involvement in Romania.

"In dealing with a communist country it is necessary to think of the whole nation as a giant corporation," McLellan said. "The President, in effect, is the chief executive officer.

"The important thing to remember is that manufacturing plants or basic production facilities cannot be owned by foreign investors—they are owned by the state or by the workers—but foreign firms can make their profits out of marketing companies which are created to serve the manufacturing system."

Americans participating in the meeting with President Ceausescu said he was ready to pledge that returns on investments would be available in "hard currency" foreign exchange. The Romanian leader cited a list of specific industries inviting U.S. investments.

Secretary Stans also declared after the meeting, "American companies would find it interesting to consider business development possibilities in Romania. The Department of Commerce welcomes inquiries and will provide available data on such opportunities."

ROMANIAN PRESIDENT AT U.S. EXHIBITION—*Nicolae Ceausescu was welcomed last month at the U.S. Exhibition at the Bucharest International Trade Fair by U.S. Ambassador Leonard C. Meeker (center) and Deputy Under Secretary of Commerce Hudson B. Drake (right). Commerce Department operated a Business Information Office within the U.S. Exhibition.*

FLAGS & STARS—*Export citations have been recently received by several U.S. firms. Shown clockwise from the upper lefthand corner are: Herb Koster, Commerce's Director of Public Affairs, presenting an "E" to Neal Moylan, New York State Commerce Commissioner, and Robert Duffy for the State of New York's Department of Commerce; with Hawaiian Agronomics' "E" Star are U.S. Senator Hiram Fong, Commerce's Assistant Secretary for Domestic and International Business Robert McLellan, and Wayne Richardson of Agronomics; John McClintock and Jack O. Padrick, Director of Commerce's Office of Business Services, hold the Schjeldahl certificate; Ernest Rubin, Commerce's Director of the Eastern Europe Division, presents an "E" to John Ferris of AVCO Lycoming; Francis Ziegler and A. H. Osterland hold Haskon's "E" flag; and Deputy Assistant Secretary for Economic Affairs, Edgar R. Fiedler presents an "E" to MPC head Paul Queyrel.*

Firms Fly New 'E', 'E' Star Banners

U.S. firms recently receiving "E" and "E" Star awards include: AVCO Lycoming Division, AVCO Corp., Williamsport, Pa., for boosting overseas sales of its aircraft engines and boilers; Jupiter Corp. of Washington, Seattle, exporter of aircraft materials and parts; Haskon, Inc., St. Paul, manufacturer of packaging machinery; Hawaiian Agronomics Co. (International), Honolulu, consulting firm to the cane sugar industry; MPC Industries, Delair, N.J., supplier of precision grinding services to the aerospace industry; New York State Department of Commerce, Division of International Commerce, Albany, for overseas promotion of New York products; and G. T. Schjeldahl Co., East Providence, R.I., for sales of packaging machinery.

Trade Fairs, Centers

Shows At French, Italian, Swiss Sites Now Recruiting U.S. Exhibitors

Rising French need for vacuum and cryogenic equipment is rapidly expanding sales opportunities for American manufacturers, which will have an opportunity to display their products in an exhibition of this equipment at the U.S. Trade Center in Paris, Feb. 8-12.

Market research conducted for Commerce points to an estimated French market for vacuum products at $21-$25 million a year, with an annual growth rate of 10-15 percent. Research also estimates imports of vacuum equipment at $7-$9 million, roughly one-third of the total market.

The use of cryogenics equipment in France is developing, and the market is estimated at $5.4 million. Areas of present and future development include electronics, superconductors, cryobiology, cryogenic finishing, trimming and tooling of materials difficult to handle at regular temperatures.

Write the Department of Commerce, BIC-942, Washington, D.C. 20230 (202-967-3822), or contact any Commerce Field Office.

Precision Parts

Italian consumption of electromechanical precision parts continued its rapid growth in 1969, reaching a value of $40 million and expanding an already attractive market for U.S. goods.

To provide American companies an opportunity to expand their sales in this market, an exhibition of precision parts and other advanced electromechanical components and devices at the U.S. Trade Center in Milan, Feb. 16-20, is planned.

Market research indicates that the U.S. supplied over $10 million, or 25 percent, of the electromechanical precision parts used in Italy in 1969. Total Italian imports of these parts in 1969 were $23 million.

Demands for connectors are expected to rise from $10 million currently to over $14 million in 1973. The market for relays is now reported at $14 million, while the market for switches is over $3 million and growing rapidly.

Write the Department of Commerce, BIC-944, Washington, D.C. (202-967-5045) or contact any Commerce Field Office.

Plastics Production Products

Rapid expansion of the French plastics industry to meet equally fast growing demands is widening sales opportunities for American production equipment and controls manufacturers. U.S. companies may show their products in this market at an exhibition of plastics production equipment and controls in the U.S. Trade Center at Paris, Mar. 1-5.

Plastics consumption in France increased 27 percent in 1969 over the preceding year to 60 pounds per capita. Output of the approximately 2,000 plants in the French plastics industry rose 35 percent.

Market research conducted for Commerce shows that sales of plastics working machinery in France during 1969 topped $50 million with more than 60 percent of the demand met through imports.

Write the Department of Commerce, BIC-948, Washington, D.C. 20230 (202-967-2835), or contact any Commerce Field Office.

Pollution Controls

Pollution laws have been on the books in Europe for several years, but it is only now that the public conscience is forcing governments to uphold the statutes.

Switzerland plans to spend $2 billion by 1980 to clean up water supplies and Belgium expects to have a $20 million program in 1972 to protect underground and surface water. Both France and Italy are also planning major pollution control programs.

PROAQUA PROVITA, a European trade fair for environmental pollution control, will offer American firms an opportunity to show their products in a rapidly expanding market. Companies may participate through a Commerce-sponsored exhibition at the June 8-12 show in Basel, Switzerland.

PLASTIC SAWDUST—*Plastics production equipment has been exhibited in Europe before. Precision cutting tools for plastics were shown at the Frankfurt Center in 1969.*

TOKYO-PACK '70—*J. B. Dove displayed its shrink film packager to potential customers in Japan.*

At least 300 international manufacturers of water and air pollution controls, noise abatement systems and waste disposal techniques will participate in the show.

From Nov. 30-Dec. 16, Commerce will stage five seminars on the European market for pollution control equipment and systems in Los Angeles, Chicago, Philadelphia, Boston and New York.

For additional information on attending the seminars and exhibition, contact John Wolf, 202-967-3822, or any Commerce Field Office.

Two International '71 Fairs Open To U.S. Exporters

Recruiting U.S. firms to exhibit their products in two international fairs, in which the Commerce Department does not plan a major promotion, is under way.

The annual International Fair of Thessoloniki, held last Aug. 30-Sept. 20, is scheduled for the same time in 1971. The last Fair included an American pavilion formed by several U.S. firms and their representatives. For information on this general fair and the pavilion planned for American companies at the 1971 event contact the U.S. Embassy in Athens.

ILMAC '71, the International Exhibition of Laboratory, Chemical Engineering, Measurement and Automation Techniques in Chemistry is scheduled Sept. 13-18 in Basel, Switzerland. The show will be followed by the Third Swiss Conference for Chemistry. For information write the Secretariat, Schweizer Mustermesse CH-4000, Basel 21/Schweiz.

Display In Tokyo-Pack Will Bring 35 U.S. Firms Top Sales Volume This Year

Powder filling, package strapping and pill counting machines were being demonstrated at the same time in the same place—the U.S. exhibition at Tokyo-Pack '70. The Japanese packaging trade fair at Harumi Pier closed with the 35 American participants estimating more than $7.5 million in first year sales.

During the Sept. 22-28 show, in which U.S. exhibitors recorded over $1.4 million in book orders, 5,879 trade visitors registered at the U.S. display.

Far Eastern representatives were sought by four of the companies and negotiations with 15 candidates were being reviewed as the show closed.

Hotel, Catering Trade Buys U.S. Goods At EQUIP'HOTEL

European representatives of the hotel and catering trade came to the U.S. exhibition at EQUIP'-HOTEL in Paris and are now planning to purchase almost $5.1 million worth of American products over the next 12 months.

Of the 32 exhibitors mounting displays under Commerce Department sponsorship, 13 were interested in overseas representatives. Seventeen agreements were concluded and negotiations for 89 additional contracts are now in progress.

Baker's Pride, Bronx, N.Y., oven and broiler manufacturer, signed a French distributor during the show and also contracted nine representatives for Europe, Africa and Asia.

The American display in the Oct. 8-19 fair drew 10,000 visitors.

CONVEYOR COOKING—*Sani-Serv showed the European catering and hotel trade its electric conveyorized broiler at EQUIP'HOTEL.*

SYDNEY, STOCKHOLM SHOWS—*Calculating equipment by Wang Laboratories was demonstrated at the Sydney business equipment show, left, while discussions of environmental testing equipment continued in Stockholm at the Endevco booth.*

Milan Pulp And Paper Show Hosts 20 Firms

The chips flew in Milan recently as 20 American firms displayed pulp and paper processing and converting equipment in the U.S. Trade Center.

Nicholson Manufacturing Co. of Seattle, Wash. showed its roto-drum-chipper at the Oct. 13-17 promotion and now anticipates selling several pieces of equipment to the European paper industry.

Total sales projected by the exhibitors reach $1.8 million. Additional predictions of $5 million are also being made for the next three to four year period. Of the three firms seeking representatives during the show, one signed an agent and the other two were still reviewing candidates at the show's end.

Sydney Business Equipment Show Projects $7.5 Million

Eighteen American companies representing 25 firms seeking added exposure in Australia's market, staged an exhibition of automated business equipment at the U.S. Trade Center in Sydney. Final show reports predict that the promotion will return more than $7.5 million in total first year sales.

An audience of 2,394 registered for the Sept. 21-25 event; 209, a capacity crowd, attended the seminar on microfilm organized by the Microfilm Association of Australia.

Electronic accounting computers, a magnetic typewriter and calculators and related systems drew interest at the show.

Dallas Firm Draws Top Sales At Environmental Equipment Exhibition In Scandinavia

Intermed Corp. of Dallas headed the sales columns at an environmental simulation and test equipment display at the U.S. Trade Center for Scandinavia in Stockholm. With $3 million, the Texas firm accounted for the major share of the show's total $4.6 million in estimated first year sales.

The Sept. 28-Oct. 3 promotion, where Intermed exhibited its analog cassette recording and reproducing systems, was accompanied by a symposium.

Five of the exhibitors were interested in contacting possible representatives through the show; six were signed and negotiations with 11 other candidates were in progress at its conclusion.

Several of the 24 American companies participating in the show displayed equipment new to the Nordic market and more than 700 visitors registered for the exhibit and symposium.

TENSILE TESTER—*U.S.-based Instron used the Milan show to exhibit a tensile testing instrument to the Italian pulp and paper industry.*

Mexico Policy On Growth, Investment To Continue

Mexico is looking forward to Dec. 1, when its newly-elected President begins his six-year term. In a report to the Department of Commerce the U.S. Embassy in Mexico City estimates that the rate of real GDP increase in 1970 will probably not be much over 5.5 percent, a noticeable decline from the stronger rates of growth of the last two years.

President Echeverria, who represents Mexico's single significant political party, is expected to be energetic and active. His policies will, it is believed, continue to be those which have ruled in Mexico for the past thirty years. Mexico will continue to seek progress with stability. It will continue to welcome foreign private investment which accords with the Government's objectives of national development.

Describes Growth Target

The present Mexican President has made it clear that the economic policy for the remainder of his term is to keep real growth at the 6-7 percent range believed sustainable with relative price stability.

One subject to which there has been increased public attention in recent months is the balance of payments, in particular with respect to increasing tourist income and encouraging exports, especially of manufactured goods. The persistent deficit on merchandise account, after narrowing in 1969, has widened again this year.

The rate of inflation may have leveled off during the past three months, after a sharp rise in late 1969 and early 1970. The Government and Bank of Mexico are confident that they can prevent the rise of prices from getting out of hand.

The new consumer price index of the Bank of Mexico showed an average rise for 1969 of 3.5 percent for the country as a whole and 3.7 percent for Mexico City. The Mexico City wholesale price index rose 2.6 percent in 1969; through August 1970 it had risen 6.5 percent above its level of the first eight months of 1969. Even though wholesale prices have apparently leveled out, however, the sharp increases of the last twelve months are no doubt still working their way through to the consumer level.

Output Is Up This Year

During the first seven months of 1970 the production of most manufactures was higher than in the same period of 1969, although in some cases the rates of growth were lower than in the previous period. Thus, steel output increased 8.5 percent (3.2 in the first seven months of 1969), sulphuric acid 14.0 (37.7), tires 5.9 (11.5), chemical fibers 20.8 (16.9), soda ash 4.9 (8.1), and cement 9.9 (10.9). Tractors showed a decrease of 45.4 percent as compared with an increase of 14.8 last year. Aluminum ingot production, which had grown 41.4 percent the previous year, when new capacity went on the line, was up only 6.4 percent. Output of many of these commodities, of course, is closely geared to market demand.

Through July of 1970 consumer durables all showed gains, most larger than in 1969, reflecting continued strong consumer demand and rising urban prosperity. Growth rates ranged from 6.4 percent for stoves to 33.6 percent for washing machines, and except for refrigerators all rates were higher than those of a year ago.

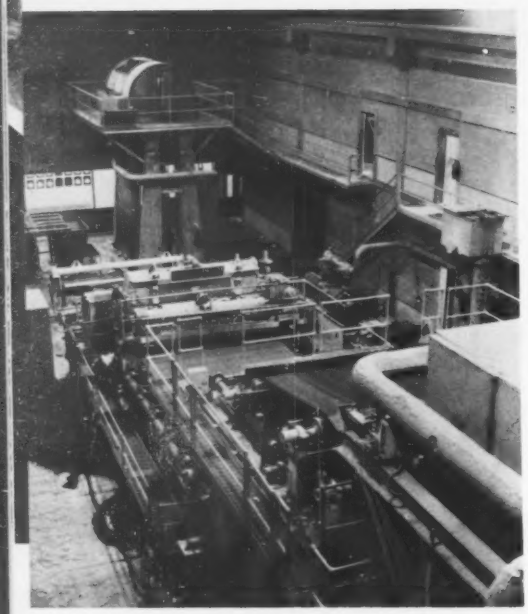
The emphasis in planning policy for manufacturing is being placed increasingly on decentralization and on production for export, both of which will be influenced by the fiscal and monetary policies of the incoming Administration. Money is expected to continue tight, and it remains to be seen what fiscal incentives the new Government will introduce. But it is very clear that protectionist policies will continue under close scrutiny with the aim of making Mexican industry more able to compete in export markets.

Agricultural production did not merely stagnate last year, as previously believed; it dropped off by some 2.1 percent. The causes were drought, followed by heavy and unseasonable rains and flooding. Cotton, the principal export crop, was particularly hard hit, and the outlook for the current and next crop years is not much brighter; the acreage devoted to cotton has declined sharply, in part because export prices are low, in part because insect damage is heavy.

Corn and beans, major food items for Mexico's people, were also hard hit by the weather in 1969, and will probably not recover significantly in 1970. On the other hand, wheat acreage in 1969 increased considerably, and output in the 1969-1970 crop year is expected to rise slightly. Sugar and coffee production and exports should be up moderately.

Farm Outlook Improves

Preliminary reports for the third quarter of 1970 suggest some recovery for agriculture, since the weather has thus far been favorable over much of the country and drought has not been a major difficulty in the non-irrigated areas, as it was in 1969. Agricultural techniques continue to improve; crop diversification, in response to market conditions, continues. Political and economic leaders increasingly emphasize the importance of solving Mexico's rural problems, but it remains to be seen



MEXICANS SHOW GAINS—*Output of most industries is up so far in 1970. Black Clawson designed this tissue machine for Scott Paper Co.'s San Cristobal mill.*

what specific directions the new Administration will take in this regard.

Mexico's fishery production continues in the doldrums, although production of shrimp, the most important species from the U.S. standpoint, rose 22 percent for the first half of 1970. Increased fishery development efforts expected under the new Administration should have a favorable effect in 1971.

Mineral production, with the exception of sulfur, has continued at somewhat higher levels than a year ago. Sulfur output (off 17.3 percent) has been curtailed because of declining world market prices. Manganese output is rising rapidly as the major producer has largely overcome its mining problems. Copper output, which is running at about the country's current rate of consumption, will rise sharply when American Smelting and Refining's 12,000 ton-a-year mine at Inguaran is completed at the beginning of 1971.

Pemex, the Government oil monopoly, has announced plans to construct a 150,000 barrel-a-day refinery at Tula, Hidalgo, to help overcome the Federal District's deficit in refined petroleum products.

Thus far in 1970, exports have been disappointing; after rising almost 17 percent in 1969, they went up only 1.4 percent in the first seven months of this year. But even maintaining the level of 1969, particularly in the face of the problems of cotton, is a considerable achievement.

Imports rose 15.1 percent in the first seven months of 1970, leaving a gap of $556 million on the balance of trade for the period. Should these trends continue for the rest of the year, the resulting deficit on merchandise trade may well be a record.

It is encouraging that the composition of exports has continued to shift in the direction of manufactured goods, including processed foods. Electrical machinery, parts for machinery, transport parts and equipment, and books, as well as fresh fruits, coffee, and shrimp, showed big gains in percentages, while such a traditional heavy export as cotton was off by over 50 percent.

Coordination Effort

The Government, through the President-elect, has announced plans to form an Institute for Foreign Trade, whose aim will be fostering exports through the "coordination" of the efforts of the public and private sectors.

With a rising deficit on merchandise trade and net earnings from tourism apparently growing at a slower pace, the current account deficit will in all probability again be large. Mexico has no difficulty in financing imports, however, and the peso, despite inflation, continues strong. The Bank of Mexico converted $5 million of its IMF holdings into gold in September, thus reemphasizing its determination to maintain the free convertibility of the peso. Net new private direct investment and new inflows of foreign borrowings continue as strong factors in the capital account, and the result of the whole year's operations on the balance of payments is expected to be another net gain.

The growth of tourist entries increased by 6.8 percent in the first half of 1970, as contrasted with a 14 percent growth in the same period of 1969. The Government has announced plans for opening new resort areas, in part as a contribution to its efforts to decentralize economic activity and spread the benefits of development into the more backward parts of the country. Major tourism projects are under discussion under which the Government will provide the infrastructure and, it is hoped, foreign and local money will put up the hotels.

Bridge Toward South

As the nearest Latin neighbor of the United States and one of the most dynamic economies in Latin America, Mexico, with continuing growth and modernization, is particularly important to U.S. interests. Its stability and its hospitality to American goods and investment make particularly significant its role as a spokesman for other Latin countries and a bridge for the United States toward the south.

Mexico continues to seek wider markets for its exports and diversification for its sources of supply, which means that, despite the preponderant role of the United States in Mexico's foreign trade, American businessmen cannot regard Mexico as a captive market. The U.S. Government is expanding its services to American exporters to Mexico, in particular by opening a Trade Center in late 1971.

Although the President-elect has not publicly defined the position of the new Administration, as noted earlier in this story, there are reasons to believe that no change is likely in Mexico's policy of welcoming foreign private investment so long as it fits in with overall objectives for Mexico's development.

Italy Poised For Big Output Gains After Overcoming Labor Problems

The Italian economy appears ready to emerge from the period of slow growth and continuing labor turmoil which began with the major strike wave in the autumn of 1969. The new Government headed by the former Treasury Minister, Emilio Colombo, which took office in August, has acted vigorously and firmly to correct imbalances in the economy, narrow the budgetary gap and stimulate business activities with credit and tax incentives.

The U.S. Embassy in Rome has reported to the Department of Commerce that Italian industrial output grew relatively slowly in the early months of 1970. The increase in the industrial production index during the first seven months of 1970 was only 3.7 percent over the same 1969 period.

Production problems have affected several key sectors, including steel, automobiles, and chemicals. Steel production of 8.9 million tons in the first half of 1970 was 2.0 percent down from the comparable period in 1969 while in the automotive industry passenger car output was cut 1.9 percent and commercial vehicles 3.0 percent.

The outlook for the remainder of 1970 is for significant improvement. The work stoppages and other severe disturbances during the last quarter of 1969 caused much of the reduced output; consequently, industrial production during the same 1970 period may show year-to-year gains of as much as 15 to 20 percent, for an overall industrial growth for the year of 7-8 percent.

Construction, particularly of residential units, is lagging in 1970 with only about a 4 percent increase expected compared with the 10.9 percent gain experienced during the 1969 construction boom.

Italian agricultural production in 1970 is forecast at 3 percent higher than in 1969 with good harvests in almost all sectors, particularly wheat, corn and fruit. Small increases are anticipated in the production of beef and pork. Imports of meat products and feed grains are expected to remain at high levels.

The Italian Government has estimated that real GNP growth for 1970 will be in the 6.5-7 percent range, compared with 5.0 percent in 1969. Private consumption of goods and services, buoyed by large wage settlements in late 1969 and early 1970, is expected to increase 8-9 percent.

Price increases continued in the first half of 1970. The Government estimates that full year price escalation as measured by the GNP price deflator will be slightly over 6 percent.

Recent Economic Measures

On Aug. 27 the Colombo Government issued a decree containing a package of tax measures, designed to raise new revenue and help cover the budgetary deficit, combined with credit and tax incentives for business production and investment. The aim of the decree is to bring about a significant reallocation of resources from private consumption expenditures to public consumption and corporate investment. The single most important tax measure was an increase in the gasoline tax bringing the retail price to about $1 a gallon.

The draft budget for 1971 has been presented to Parliament. With expenditures of $22.4 billion and revenues of $19.4 billion, a deficit of about $3.0 billion is projected for 1971, about the same as the 1970 draft budget.

For the first half of this year the monetary authorities continued to follow a mildly restrictive policy initiated in mid-1969. The essential problem of domestic credit is a shortage of long-term funds, both for domestic needs and to finance exports. This shortage has been felt especially by small and medium sized firms which have no direct access to the capital market but must work through the medium and long-term credit institutes.

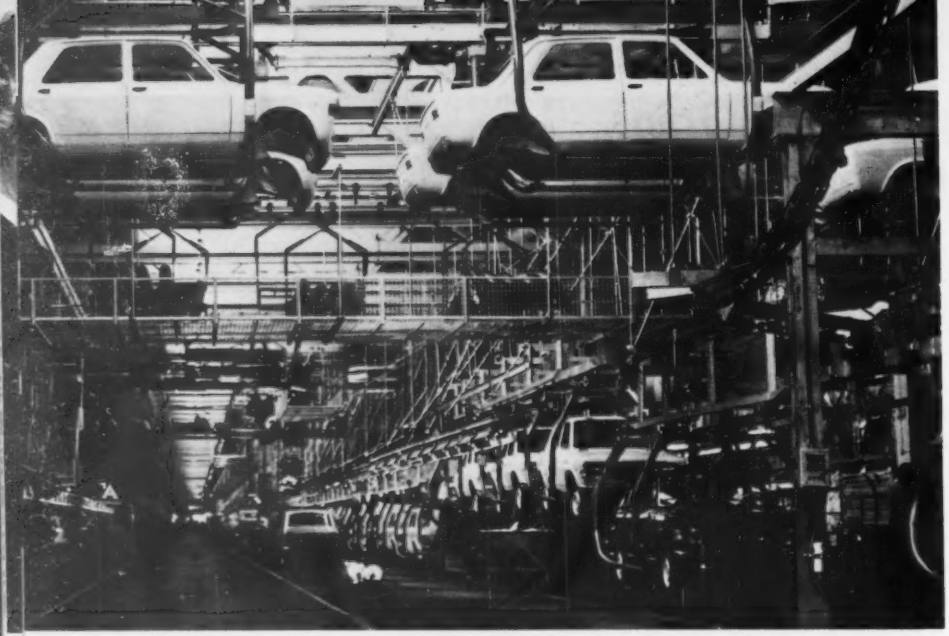
In the first 8 months of 1970 Italy's overall balance of payments position registered a deficit of $452 million as compared with a deficit of $791 million for the same period last year. However, unlike last year, when the principal cause of the negative balance of payments was the capital outflow, this year's deficit was caused mainly by a deterioration of the trade account. Italy's official foreign exchange reserves continue to be substantial (about $4.5 billion) despite the drain caused by the recent deficits.

The trade account showed a deficit of $898 million as compared with a deficit of only $74 million for the first half of last year—a deterioration of approximately one billion dollars. It resulted from a rise in imports far exceeding that of exports.

Imports went up by 21 percent while exports increased only by 7.3 percent. The poor export performance in contrast with past years is attributable to labor difficulties during the first few months of the year. Imports were also affected by domestic labor troubles, which led buyers to seek foreign sources of supply—especially for automobiles — and by rising personal incomes as a result of wage increases negotiated last fall.

As for the invisible items, it is of interest to note that there was a net drop in net tourist receipts. The cause for this was a significant increase in Italian tourism abroad.

The current account balance reflected the weakening of the trade account. It showed a small surplus ($200 million) which is just about one billion dollars less than that



ITALIANS OVERCOME OUTPUT PROBLEMS—*Activity is picking up now after a slow first half. The auto industry was among those having difficulties, with passenger car output down 1.9 percent. Here, Fiat's Rivalta Works. (photo courtesy Fiat)*

which was registered last year.

The net capital outflow during the first half amounted to just under $800 million in contrast with the over $2 billion outflow registered through June 1969.

The Government of Italy indicates that achievement of overall real growth in 1971 consistent with the 6 percent average attained over the last five years is possible. Growth of private consumption in the 7 percent range is predicted while investment in plant and equipment is expected to grow by 10 percent in real terms.

The housing sector may face difficulties. Skilled labor shortages may occur in some industrial sectors. Other necessarily important potential hazards to economic growth and prosperity in Italy include the possibility of further labor disorders, and financial and budgetary difficulties for all levels of government.

Nevertheless, the achievement of 5% real GNP growth in 1969 and the anticipated growth of about 6% in 1970, in the face of the major difficulties through which the Italian economy has passed, lend credence to the forecast of a satisfactory pace of growth next year.

Not to be expected, however, is a resumption of the pattern of price stability which was a feature of the five years prior to mid-1969. The current pattern of labor unrest and insistence by the unions on a direct voice in the formulation and execution of social reforms may indicate that in the years to come wages may be increased more rapidly than in the past.

Nevertheless, even the rather severe price increases of the past year have by no means priced Italy's goods out of world markets since her major competitors have for the most part experienced inflation at about the same pace. As Italian industries regain full production, the country's export drive, handicapped by supply shortages in the first half of the current year, is expected to regain momentum.

As domestic consumption expands and the rate of private and public outlays grows, it is reasonable to anticipate for the medium-term a continuous upward movement of Italian imports. There is evidence that in many sectors of the Italian market there is growing need for a wide variety of imports.

Ghana Counts On Recent Measures To Spur Economy

Ghana's new civilian democratic government has taken a number of steps designed to revive the country's long stagnant economy. In a report to the Department of Commerce the U.S. Embassy in Accra states that these measures include:

► Fewer import licensing controls, partially offset by higher tariffs and temporary surcharges.

► Strict limits on non-development government spending.

► Rescheduling of foreign debt.

► New law to encourage expansion of foreign banks.

The Ghanaian economy benefited from high world cocoa prices and a good cocoa crop in late 1969 and early 1970. Overall export earnings for the first half of 1970 were 27 percent above the first half of 1969. Aluminum exports from the VALCO smelter at Tema, jointly owned by Kaiser and Reynolds, jumped nearly 64 percent in 1969.

Ghanaian-U.S. relations are close and friendly. Ghana is non-aligned internationally, and welcomes mutually beneficial economic relations with all. It has completed its transition from a post-coup military government to a parliamentary democracy. This evolution has attracted the interest and sympathy of much of the world and could serve as inspiration for other less developed countries. Economically Ghana is moving towards a more open economy, reducing quantitative import controls, exposing old state corporations to market forces, and encouraging the development of private Ghanaian enterprise.

Ghana's Second International Trade Fair, to be held Feb. 1-14, 1971 in Accra will offer a showcase for U.S. and competing foreign products. The first fair in 1967 attracted nearly a million visitors. Although the United States is not

presenting a commercial exhibit, many individual American companies and local agencies are making arrangements to show U.S. goods. The United States Information Agency will have an exhibit featuring U.S. achievements in Space Exploration.

Ghana has just freed a large number of commodities from quantitative import controls. More than fifty percent of Ghana's total import bill is now made up of items on open general license.

To prevent a sudden drain on Ghana's slender foreign exchange reserves resulting from a rush to import the liberalized items, and to give some offsetting protection to local industry, increased tariffs and temporary surcharges have been imposed. Most of the temporary surcharges run from 5 to 40 percent.

At the same time, most of the liberalized commodities also still remain on 180-day payment basis. This 180-day system of deferred hard-currency payments to suppliers was inherited from earlier governments. It adds an estimated 15 percent to Ghana's commercial import bill to cover financing costs.

One Of Ghana's Goals

One of Ghana's present objectives is to work off these current arrears gradually and move to a spot payment basis. Already a few items, including rice and vehicle spare parts, have been put on spot payment. Although it is not expected that the total overall value of imports will increase substantially, the new liberalization will permit importers to choose more rationally from a wider range of products.

The Ghana Government remains committed to an open multilateral trade policy, and U.S. goods continue to receive most-favored-nation treatment. Nevertheless, Ghana has been studying possible arrangements with the European Communities, although it has not announced any conclusions. Ghana also still maintains bilateral trade and payments arrangements with the USSR, under which Ghana exports cocoa and imports crude oil.

VALCO LEADS GHANAIAN GROWTH—*Exports jumped 64 percent last year from the Kaiser and Reynolds aluminum smelter at Tema, which is now being expanded.*

Ghana is continuing its efforts to rationalize the 18 remaining state-owned industrial firms inherited from the Nkrumah regime. As a group these have now become self-supporting on a current basis and are being exposed to increased competition both from imports and from private local industry. The Government has stated that no new state corporations will be established unless it is clear that they will be operated in a business-like way and be profitable.

Exploratory offshore oil drilling began this year. A well sunk for a group comprising Signal, Occidental and Amoco has produced low sulfur petroleum. However, further finds are necessary before it is established that Ghana has a commercially exploitable field.

Ghana is devoting a substantially increased proportion of its budget to agriculture, long a neglected sector, where rapid productivity gains are possible. For FY '71 the Ghana Government plans to increase spending on rural development and agriculture by 47 percent over the previous year's budget, to over $35 million, and to give agriculture top priority over all other fields.

As rural development proceeds, the market for U.S. farm equipment and supplies should expand. The Department of Commerce is sponsoring the visit to Ghana this fall of a specialized trade mission to develop expanded U.S. agribusiness exports to Ghana.

Law Hits Small Foreign Firms

In August the Ghana Business (Promotion) Act came into effect, forcing about 500 small foreign-owned businesses, mostly importers, to close down or sell out to Ghanaian businessmen. Most of this number could not show gross turnover of $490,000 or more a year, significant manufacturing operations, or specialized service that could not be provided by Ghanaian-owned firms. Among fields to be specifically reserved to Ghanaians are road transport and sales of locally-produced food.

These new but long-planned restrictions on small foreign enterprises have posed problems to some foreign firms with local sales subsidiaries and will tend to discourage foreign companies from locating sales offices in Ghana. At the same time, however, the Ghana Government has reiterated that it

continues to welcome new foreign investment in manufacturing and other industries.

The new civilian, parliamentary Government has stated that it reserves the right to review contracts and concessions made between previous governments and private foreign companies. One arrangement for the construction and operation of various industrial plants was abrogated early in the year. As far as is known, no Ghana Government contracts with American firms have been impaired.

Ghana's FY 71 budget severely restricts the growth in recurrent (nondevelopment) expenditures, not counting external debt service, to about 3.5 percent a year, less than the average increase in local price levels over the last several years. At the same time the Government hopes to increase development expenditures by 53 percent to $135 million in FY 71.

Ghana warrants renewed attention by U.S. firms, especially from a medium to long-term perspective. If Ghana's new economic reform and liberalization program takes hold and sets in motion an era of substantial real per capita economic growth, those firms and product lines already well established in Ghana will be in the best position to profit.

Even now there is some immediate unrealized potential for increased U.S. exports to Ghana. For example, U.S. manufacturers of various kinds of industrial equipment and earth-moving equipment, to cite only two examples, are discovering some unexpected opportunities for current sales.

However, in most cases U.S. firms should focus primarily on longer range opportunities, since Ghana's expenditures on imports will probably not increase during the next year. Periodic personal visits by home-office representatives supplemented by an effective local agency in Ghana is probably the best way to introduce U.S. products new to the Ghanaian market.

Korea To Keep Up Rapid Expansion While Working To Balance Economy

The most significant issue on the Korean economic scene is the progress of stabilization efforts which were initiated in November 1969. In particular, there are three pressing questions for the Korean economy: has the program been effective in slowing the rate of inflation; is the balance of trade picture improving; and what has been the effect on economic expansion? The U.S. Embassy in Seoul has attempted to provide some answers to these questions in a report to the Department of Commerce. Following are excerpts from the report.

The Korean Government has employed both monetary and fiscal instruments in its recent stabilization efforts, but has relied principally on the former. Commercial banks were required to eliminate shortages in their reserve requirements with the Bank of Korea. This was accomplished by the end of March 1970 through temporary suspension of rediscounts and by exercising greater selectivity in extending new loans. Efforts to collect overdue loans have been accelerated.

Efforts were also made to reduce liquidity by adjusting the money supply. According to adjusted figures, money supply did not increase during the first half of 1970, compared to a 10.0 percent rise during January-June 1969.

A significant portion of Korea's development has been financed with foreign capital inflows, with some inflationary impact. In keeping with guidelines called for by the IMF Standby Agreement, the Government limited the amount of new commercial loans approved, and placed strict controls on so-called "cash loans" (money borrowed from abroad to cover domestic expenditures). Measures restricting cash loans are now being relaxed. The Government has also gradually eased controls on domestic credit.

While the Government feels improvement may be registered in the latter half of the year, thus far in 1970 prices have risen at a disappointingly rapid rate. Wholesale prices rose at an annual rate of 8.7 percent for the first six months of this year (6.7 percent in 1969) and the Seoul consumer price index increased 12.8 percent (9.4 percent in 1969).

The Korean economy, spurred by the momentum of past advances, appears to have been only marginally affected by the stabilization program. The rate of industrial production increased at an annual rate of 17.3 percent during the first half of 1970, as compared to 21.9 percent the previous year. Also, the construction boom is continuing.

Preliminary estimates place total real GNP growth for the first six

Export Zone Progresses

The Republic of Korea is moving ahead with development of the Masan Free Export Zone. Construction of the first plant has begun and arrangements for supporting facilities are progressing rapidly.

Free trade zone privileges will be extended to industrial enterprises which manufacture, process or assemble goods solely for export, and in which the foreign equity interest is at least 50%. Remittances of profits and repatriation of principal are guaranteed.

Further information may be obtained from the Transportation and Insurance Division, BIC, U.S. Department of Commerce, Washington, D.C. 20230.

months of 1970 at 11.6 percent. Based on this strong half-year performance, Korea should attain, or perhaps exceed, an 11 percent annual real rate of GNP increase for 1970. The Korean Government predicts a 10 percent growth rate for 1971, which currently appears attainable.

Export industries were specifically exempted from the stabilization program. Exports continued to rise, to $373 million in the first six months of 1970. As in the past, the United States was Korea's principal market, taking slightly under half of Korea's exports. Korea's exports for 1970 are expected to be in the neighborhood of $850 million.

Total Korean imports for 1970 are expected to reach $2,030 million. This would result in a trade deficit of $1,020 million, about the same as last year.

Growing Debt Burden

Korea's debt servicing continues to be a potentially serious problem. In May the following repayment principal and interest schedule was announced for long-term debt (over 3 years) outstanding at the end of 1969: 1970—$187 million; 1971—$234 million; 1972—$283 million.

These figures do not include substantial repayments of short-term obligations. In 1970 these additional repayments would, for example, bring total debt service to nearly $350 million.

Korea's borrowings are expected to remain at a high level in 1971-72, with possible increases in commercial loan levels, and also higher levels of official loans, the latter due particularly to expected increases in loan activities in Korea by Japan and the World Bank Group.

U.S. interests are best served by continued healthy growth of the Korean economy. Although the results of the current stabilization program to date have been inconclusive, the Korean Government has shown itself capable of selecting appropriate measures to correct internal and external imbalances. Achieving the 8.5 percent rate of GNP growth postulated in the Third Five-Year Plan will depend to no small extent on the successful application of these and similar measures.

GNP growth rates of 8.5 percent (or the 10 percent officially projected for 1971) are, of course, considerably lower than the 1969 revised rate of 15.9 percent. If these more moderate figures are adhered to, the result would be somewhat lower investment requirements, thus reducing the pressure on domestic prices by lowering the effective demand for total available resources. Lower growth rates would also reduce demand for imports and for foreign capital.

The recent ministerial level talks held in Seoul in July were a milestone in Japanese-Korean relations. At these talks the Japanese agreed in principle to provide loans of $100 million equivalent for projects in four fields: shipbuilding, a cast iron foundry, special steel, heavy machinery and, secondarily, plants for producing copper alloy, auto parts, and optical equipment.

For Faster Shipping

The Bonded Warehouse Transaction (BWT) procedure for shipments to Korea has remained largely unknown to U.S. businessmen, because of past changes in Korean trade regulations.

By utilizing basic bonded warehouse transaction procedures, a U.S. exporter may be able to send shipments to Korea on consignment without a prior import license, thereby partially overcoming the problem of shipping time.

More complete details on the BWT are available from the Transportation and Insurance Division, BIC, U.S. Department of Commerce, Washington, D.C. 20230.

FURNACE FOR KOREA—*Inductotherm Corp. sent this 15-ton arc furnace to a steel plant in Seoul. U.S. machinery makers may soon face more local competition.*

These projects, to which the Koreans have already devoted rather extensive preliminary study, will form the nucleus of the Third Five-Year Plan development.

The Japanese also agreed to consider providing an additional $100 million in commercial credits. Increased Japanese participation in the Korean economy, especially in supplying loans at concessional terms, is an encouraging development. At the same time, it portends increased competition.

U.S. investment in some of the four major areas mentioned above would probably be welcomed. Other high priority sectors with investment potential include automobile parts and agribusiness.

The U.S. share of Korea's commercial imports increased from $126 million (18.7 percent) for the first six months of 1969 to $177 million (22.9 percent) for the same period of 1970. Due to the rapid increase in imports from Korea, the United States had a $6 million overall deficit in commercial trade with Korea for the first six months of 1970, as compared to approximate balance in the first half of 1969 and a surplus in the corresponding period of 1968. If the United States can maintain the pace of its first half exports to

Korea, total commercial exports for 1970 could reach $400 million.

In addition to increased competition from other suppliers—principally Japan—there are indications that Korea's program to reduce dependence on imports is beginning to show results. CIF imports for 1971 are currently forecast at $2,184 million, only 7.6 percent above predicted 1970 imports.

By the end of the Third Five-Year Plan (1976) Korea hopes to attain balanced trade. If these projections are correct, the United States should place increased emphasis on those areas which are expanding (especially crude materials, chemicals, miscellaneous manufactures) while striving to maintain its position in the machinery and transport equipment market, which is expected to be more competitive.

More Resources Available

In early July the United States announced plans to withdraw 20,000 American troops from Korea by June 1971. The U.S. decision was predicated on an assessment that Korea's current economic performance is well founded and that continued vigorous expansion can be expected. The rapid progress to date has produced sizable increases in revenues available for all purposes, including defense.

By 1972 the increase in GNP over 1969, as conservatively estimated by Korean planners, will make available an additional $52 million annually for defense, even if the percentage of total government revenues devoted to defense spending is not increased. Carried further, by 1976 an additional $177 million above the level of 1969 spending will be available, using present Korean GNP estimates.

The investment climate continues to be generally favorable. The Korean Government is showing increased selectivity in choice of investments and in project analysis. There is the usual emphasis on export-oriented industries, but increasing stress is being placed on projects which introduce new technology or which are joint ventures, rather than cases where 100 percent equity is held by foreigners.

The labor situation has been stable; labor supply is satisfactory. There are signs that the rather large wage increases of the previous two years are continuing. For the first five months of 1970, wages for regular industrial employees in manufacturing increased at an annual rate of 22.2 percent. During 1969 wages increased by 23 percent.

Continued American investor confidence in Korea is indicated by the fact that between January and July 1970 fifteen new projects involving $4.2 million in equity were approved, including a $2 million project to produce computer parts. Judging from the increased number of inquiries and exploratory visits, U.S. investor interest appears to be on the rise.

Economic Indicators Are Offered By U.S. Embassies In Six Countries

Following are brief indicators taken from Economic Trends Reports recently received by the Department of Commerce from the U.S. Embassies in six countries. Over 150 such reports for 113 nations, ranging from 4 to 12 pages each, are received annually. Annual subscriptions to the entire Foreign Economic Trends series may be obtained for $15 by writing to any Commerce Field Office or to Sales & Distribution Branch, Room 2119, U.S. Department of Commerce, Washington, D.C. 20230. For subscription form see back cover of this magazine.

El Salvador may be headed for a significant increase in its rate of economic growth in the years immediately ahead. GDP may grow to 6-7 percent, in contrast to 3.4 percent in 1968 and 3.9 percent in 1969. To the extent that current progress in revitalizing the Common Market accelerates, the trends become even more positive.

Exports will provide the funds necessary to finance the higher growth rates, and government investment programs and good agricultural prospects will assure some growth rate increase. The question as to whether the potential increase is fully realized, however, depends ultimately upon whether private investors take advantage of the availability of funds and existence of consumer demand to invest in new productive enterprises.

Prospects for the **Spanish** economy over the next several months appear generally favorable. A sharp tightening of monetary policy appears to have successfully reduced the rate of growth from the too-rapid 7.8 percent of 1969 to an estimated 6 percent in 1970, without yet having caused any substantial decline in private investment or fall in employment. Private consumption, fueled by large wage and salary increases, continues to rise. Although the foreign trade deficit widened during the first eight months of the year, capital inflow and earnings from invisibles more than offset the trade gap, and official reserves rose from $833 million at the end of 1969 to $1,411 million at the end of August.

However, there are some areas of concern in the near-term outlook. There has been a sharp recent rise in prices, and wages are increasing substantially more rapidly than productivity. Also, there is some question about the durability of the balance of payments surplus as well as uncertainty and preoccupation within the private sector over

credit restrictions and rumored political changes.

The nature of future **Bolivian**-U.S. economic and commercial relations will depend in large part upon the shape of Bolivian political developments during coming months. Specific developments in the Bolivian economy and in government policies which will have important implications for the United States and bear watching are:

► Resumption of petroleum exports from the former Bolivian Gulf Oil Company properties and completion of the natural gas pipeline to Argentina.

► Shifting in the balance of trade against the United States because of increasing third-country competition, increased mineral imports from Bolivia and high mineral prices, and a slowdown in Bolivia's rate of economic growth.

► Continued borrowing from U.S. capital markets, especially short and medium term credits, but with the outlook for direct, private foreign investment unclear.

The **Colombian** economy continues on the upswing, and will perhaps show a 7 percent or better GNP growth for 1970, partly on the strength of favorable coffee prices. This economic growth is being achieved, moreover, with relative price stability.

However, the high rate of national unemployment constitutes a challenging problem. Significantly, the Pastrana Administration, which assumed power on Aug. 7, has proclaimed dedication to a broad campaign against unemployment, poverty and inequality. It has indicated intentions to continue the major economic policy lines of the preceding administration. However, various policy modifications and new experiments are likely as the Government endeavors to promote job creation and to better the position of the less privileged.

With good prospects for higher export receipts next year, the import budget will probably surpass that of 1970.

Iceland's current economic boom, which was threatening to turn into a runaway inflation, may have been given a new lease on life by the introduction of a comprehensive price freeze effective Nov. 1. The measure is designed to keep the price level of Icelandic exports from soaring beyond the bounds of world market toleration, and thus make continued real economic growth possible. Ample liquidity in the banking system should provide a satisfactory credit cushion should the economy over-react to the price freeze.

KEEPING PACE WITH ICELANDIC BOOM—*This diatomite plant near Lake Myvatn in northern Iceland, a joint venture between Johns-Manville and the Government, is completing an expansion program that will double 1969 capacity to about 22,000 tons.*

If private consumption continues to expand as expected, sales of consumer durables should maintain the above-normal levels reached in 1970. U.S. exporters, however, face a highly competitive situation as a result of Iceland's accession to EFTA on Mar. 1 of this year.

The Federation of Icelandic Industries has made a survey of its member firms to determine various product lines that could be manufactured in Iceland under licensing and know-how agreements. The results of the survey are expected to be released soon.

The **Saudi Arabian** Government has published the country's first development plan. Prepared with the help of the Stanford Research Institute, the plan's principal objectives are an annual growth rate of 9.8 percent over the next five years, diversification of the economy, and development of human resources. To achieve the projected growth rate within this time frame will require gross investment (public and private) totaling nearly $4 billion. The plan calls for allocating nearly one-fourth of all investment for education, health and social affairs.

The country currently is experiencing dullness in commercial activity and economic growth in spite of renewed, substantial growth in petroleum output. Development expenditures have been affected by the continued payment of large subsidies to the UAR and Jordan, increased requirements for defense and internal security, and the government's determination to let revenues catch up with expenditures. On the other hand, the Kingdom's balance of payments and foreign exchange reserves are benefiting from the tight fiscal controls.

World Trade Actions

Entrepot, Mining Law, New Code Affect Trade

A number of U.S. firms are finding it advantageous to use **Indonesia's** general entrepot, P.T. Jado Warehousing, when shipping to Indonesia. Importers of their goods, who are required to make a 100% advance deposit when opening a letter of credit, need finance the merchandise for only the three days required to remove the goods from the entrepot, compared to 60-120 days when importing directly from the United States. Delivery time also is considerably shortened. Firms in other supplying countries are using the entrepot even more extensively, and the total value of warehouse entries is now well over $1 million monthly.

P.T. Jado is owned by the Indonesian Department of Trade. However, operational responsibility rests with an Indonesian representative of the internationally known cargo inspection firm, General Superintendence Ltd. of Geneva, Switzerland.

Since its opening in April 1969, P.T. Jado has incurred no losses of goods under its control in the warehouse area. While present warehouse facilities are small, considerably expanded facilities, to be operated as a true bonded warehouse system, will be available in 1971 near the port of Tandjung Priok.

Additional information on the present facilities, type of goods warehoused, and step-by-step procedures for using the entrepot are available from the Far East Division, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230. Additional information may also be secured directly from P.T. Jado Warehousing, 5/7 Kali Besar Timur, Djakarta Kota, P.O. Box 1257/Dak., Djakarta, Indonesia.

The **Peruvian** Government has listed in Decree-Law No. 18436 dated Oct. 13, several functions of the State mining company Minero-Peru, which was created by Peru's Normative Law of Mining promulgated in April.

Minero-Peru will represent the State in mixed mining companies—i.e., those formed with both State and private capital. The mixed companies would be ones in which State participation is not less than 25% of the capital set-up. They may explore for, extract, refine, transport and market Peruvian minerals other than petroleum and minor exceptions. The companies would be administered by Minero-Peru representatives working concurrently with private parties.

Copies of Decree-Law 19436, in Spanish, are available from the American Republics Division, BIC-886, U.S. Department of Commerce, Washington, D.C. 20230.

Costa Rica has adopted several major amendments to its Commercial Code which could restrict the operations of foreign enterprises and individuals.

The reforms included in Law No. 7625 of July 30, restrict the legal inscription of new sales branches to companies producing their own products in Costa Rica, and permit foreign individuals to engage in trade—including agencies and distributorships—only after ten years of residence in Costa Rica.

The foreign business community in Costa Rica is not overly concerned about the law, since it appears that it is not retroactive and since the provisions are ambiguous enough to allow the continuation of some distributing operations through other legal devices including the formation of subsidiaries.

The restriction against foreigners with less than ten years' residence does not apply to individual businessmen if they are covered by international treaty. According to the Costa Rican Government, U.S. citizens are exempt because of the Treaty of Friendship, Commerce and Navigation of 1851.

Copies of Law No. 7625 may be obtained on loan from the Commerce Department's American Republics Division, BIC-886.

Eximbank Making Discount Loans More Flexible

The Export-Import Bank has modified several regulations regarding its discount loan program, in order to make the program more flexible.

In addition to making loans to a commercial bank, Eximbank now will purchase on a case-by-case basis the underlying export debt obligation with full and unconditional recourse on the commercial bank. Since Eximbank will be purchasing the buyer's obligation, the form of obligation and the underlying transaction must conform with Eximbank's policies and procedures. It is not intended that the discount facility should be turned primarily into one of purchasing notes, but rather to assist those banks that find it necessary to sell the underlying export paper instead of borrowing from Eximbank, thereby increasing the attractiveness of expanded export financing.

The availability date for making discount loans (or purchases) will no longer be limited to one year, but, as in the medium-term guarantee and insurance programs, will be consistent with the estimated date of shipment of the products.

When necessary in order to meet foreign, publicly-supported competition, Eximbank will consider on a case-by-case basis making discount loans (or purchases) on the

same repayment term as the underlying export obligation. For example, cases requiring (a) terms longer than five years, (b) repayment beginning about one year after shipment, and (c) annual repayments.

In support of U.S. exports, Eximbank has recently made loans and financial guarantees of:

- $840,000 for auto equipment, $1.1 million for technical assistance on a road project, and $2.2 million for electric power equipment in **Brazil;**
- $10 million to support the sale of U.S. copper mining equipment and services, $4.7 million to help equip a communications satellite station in the **Congo;**
- $4.3 million for the sale of U.S. machine tool equipment to **Japan;**
- $48 million to help Portugal's principal air carrier buy U.S. jet aircraft;
- $1.2 million for sales of electric power equipment in Togo.

A total of $89 million worth of U.S. goods and services will be exported through these loans and guarantees.

Lending Activity

The international banking community has provided the following loans for development projects throughout the world:

The World Bank has approved two loans totaling $79 million to **Iran** for electric power and education.

The International Development Association, a World Bank affiliate, has provided a $6 million agricultural credit to **India** for control of crop pests through the expansion and improvement of aerial spraying services, mainly for small farms.

The Inter-American Development Bank has loaned the equivalent of $6 million to **Colombia** for preinvestment studies.

Asian Development Bank loans will provide:

- $3.5 million for modernization of tea factories in **Ceylon;**
- $9.5 million for a power transmission and distribution project in **Korea;**
- Technical assistance in the development of **Indonesia's** teak industry in East Java.

Texas Trade Zone Will Boost Exports

McAllen Trade Zone, Inc., a Texas non-profit corporation, has been issued a grant authorizing the establishment of a foreign-trade zone, emphasizing export-related activity, at McAllen, Tex.

The Foreign-Trade Zones Board, in issuing the grant, urged continuing attention by the applicant to such export-related operations.

The zone, of an industrial park type, will be situated on a 40-acre site near the U.S. Customs port of entry at Hidalgo on the Mexican border. Some 11 firms will be using the zone at the outset, employing over 200 persons. Activities will include food processing, and light manufacturing and assembly of industrial products.

The project is being financed in part by a loan and grant recently approved by the Economic Development Administration of the U.S. Department of Commerce. The site is within the Lower Rio Grande Valley Economic Development District.

Foreign-trade zones are areas under Customs supervision, where foreign merchandise may be brought without a formal Customs entry. Foreign and domestic goods may be stored, combined, processed, manufactured, and exhibited in zones, and customs duties need not be paid unless and until dutiable goods enter U.S. Customs territory.

The application for the foreign-trade zone license was accepted for filing with the Board in May, and public hearings were held at McAllen in June. A separate part of the application requesting authority for a special-purpose subzone at La Porte, Tex., will be investigated in the near future.

Austrian, Danish Firms Denied Export Rights

The Commerce Department has acted against firms in Austria and Denmark for violations of U.S. export control regulations.

Commerce's Office of Export Control continued for five years the restrictions imposed Apr. 10 against Comp-Data of Vienna and its chief official, Johann Nitschinger; the firm Dansk Impulsfysik of Holte, Denmark, and its export manager, Hilmar Kristensen, have lost the right to U.S. exports for an indefinite period.

Early in 1969 Nitschinger was requested by Otto Goldeband of Vienna, on behalf of his firm Austis Warenhandelsgesellschaft, to obtain a quantity of magnetic video tapes. Goldeband and his firm had been prohibited from dealing in U.S. goods since 1962 because of infractions of U.S. export control laws.

Nitschinger, through his agent in California, arranged for the purchase of $52,000 worth of the tapes to be exported to Canada. On arrival of the tapes in Vancouver they were reexported to Austis in Vienna and shipped to an unauthorized destination.

The Dansk firm is engaged primarily in production and trade in electronics equipment. In 1966 Kristensen, on behalf of the firm, ordered and received from a U.S. supplier 22 machines that required validated licenses for exportation to East European countries. Shortly after arrival of the machines in Denmark the firm exported them.

Written questions were submitted to the firm and to Kristensen, inquiring as to their participation in the transaction, particularly with regard to the reexportation. They failed to respond. The denial order will remain in effect until the parties respond or show good cause for failure to do so.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows, incorporating the familiar Licensing and Investment Opportunities and Foreign Trade Opportunities, presents details about licensing and joint venture proposals, opportunities to sell foreign firms and government agencies, appoint agents, major construction and expansion projects, and visits by foreign buyers.

Licensing, Investment Abroad

2085—MEXICO—Owner wishes to sell all or part of **rum distillery.** Plant, located near sugar cane area, produces 90,000 cases yearly. Reportedly, it is the only manufacturer of rum which meets Mexican standards. Established sales network and three branch warehouses. Office of International Investment, Dept. of Commerce, BIC-878, Washington, D.C. 20230. WTD. P-70918. Responses from U.S. firms will be sent to the Mexican company for direct reply.

2834—SWITZERLAND—Licenses to produce **medicinal sprays.** Firm established in pharmaceutical specialties field; has developed new products; employs about 125. Peter L. Basci, Gen. Mgr., Perfecta AG, Sandrainstrasse 3, 3000 Bern. WTD. P-70922

2850—DENMARK — Licenses to make products utilizing firm's capabilities in **surface coating field.** Emphasis on woodworking, building and construction industries. Also interested in new products or processes to supplement present line of lacquers, enamels and explosives. Danlac A/S, 58 Fabriksparken, DK-2600 Glostrup, Denmark. WTD. P-70899

2851—FRANCE — Licenses to produce **paints in powder form** to spray on metal or other surfaces. Firm manufactures paints and varnishes; employs 70. Societe Fabenrev, 38 rue du 14 Juillet, 91—Corbeil-Essonnes, France. WTD. P-70916

2911—PORTUGAL — Proposals invited for construction and operation of **new oil refinery and petrochemical facility** in southern Portugal. Initial capacity of refinery to be 6 million tons, expanding to 10 million tons. Adjoining terminal and storage facilities must accommodate tankers with 300-thousand ton capacity. Principal product of petrochemical plant will be ethylene; minimum annual production is 200 thousand tons. Bids due within 90 days of announcement. Secretary of State for Industry, Ministry of Economy, Lisbon 2. P-70908

3320, 3559—SWITZERLAND—Seeks to exchange **know-how for gray iron and aluminum castings.** Also wants licenses to manufacture **machinery for plastics, chemicals, packaging, food and other industries.** Currently makes castings and machinery on job order basis for European countries. Is automating its gray iron and aluminum departments. Firm's sales manager plans U.S. visit in 1971. Christian Hegi, Sales Mgr., Hegi & Cie.S.A., 3414 Oberburg, Canton Bern. WTD. P-70917

3443, 3536, 3713—FRANCE—Manufacturer of **dump-truck bodies, cranes and boilers** seeks licenses with U.S. firms in related product lines. Firm employs 500, 1969 sales reported at slightly over $9 million. Owns and operates plant located in greater Paris area. Edmond Doveil, Decauville S.A., 66 rue de la Chaussee d'Antin, Paris 9. WTD. P-70912

3443, 3500 — GERMANY — Licenses to make **plastics working machinery, heat exchangers and related components, gas heaters and industrial water purification and sewage systems.** Also seeks rights to a process for the manufacture of glass reinforced plastic parts. Firm makes water purification systems, steam boilers and commercial incinerators; employs about 2,500. Office of International Investment, Dept. of Commerce, BIC-878, Washington, D.C. 20230. WTD. P-70905

3433, 3522, 3631—NEW ZEALAND—Firm currently assembling and marketing Italian motor scooters and motor cycles seeks arrangements for manufacture in New Zealand of **riding mowers, light agricultural cultivators and natural gas appliances** including heaters, cookers, hot water systems and central heating units. Firm would market products in both New Zealand and Australia. Reported annual sales reach $280,000. Mr. R. Baker, Gen. Mgr., Airco (N.Z.) Ltd., 227-229 Archers Rd., Takapuna or P.O. Box 30-030, Takapuna, Auckland 9. WTD. P-70919

3530—ENGLAND—Licenses to manufacture **products for the materials handling and storage field.** Product line includes shelving, storage equipment, construction apparatus. Firm employs about 1,800; has domestic marketing network and affiliates and distributors in over 100 foreign countries. Mr. J. Morris, Group New Products Dept., Dexion Ltd., Dexion House, Empire Way, Wembley, Middlesex. WTD. P-70906

3530—ENGLAND—Licenses to produce **mining machinery, pneumatic and hydraulic conveying equipment.** Also, **refuse and dirt disposal equipment and beach cleaning machines.** Firm presently manufactures machinery in this field. Established 1966; is subsidiary of German company. David R. Little, Man. Dir., Schwartz Mining & Industrials, Ltd., Backworth Mining Offices, Shiremoor, Northumberland. WTD. P-70921

3544—SINGAPORE—Company wishes to find joint venture or technical assistance partner to set up facility to manufacture **tools, dies, fixtures, molds, etc.,** to precision tolerances. Partner ideally would be medium to small firm able to provide expertise and some skilled production. U.S. company need not provide capital. H.F.B. Von Cadolsburg, Man. Dir., Intersteel (Pte.) Ltd., Singapore. Additional background information available from the

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) manual.

Background information on opportunities abroad and also assistance on overseas investments are available from the Office of International Investment, U.S. Department of Commerce, BIC-878, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

For additional information on opportunities to manufacture foreign firms' products in the U.S., write Commerce's Office of International Investment, BIC-874, referring to the applicable file number assigned each opportunity.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230 or from any Commerce Field Office.

Office of International Investment, Dept. of Commerce, BIC-878, Washington, D.C. 20230. WTD. P-70907

3559—FRANCE—Licenses to manufacture **cardboard and/or plastic molding machinery.** Firm produces cardboard tubes, operates two plants and employs around 210. Markets its product in Western Europe, North Africa. Mr. R. Acobas, LHOMME S.A., 32 rue des Cordelieres, Paris 13. WTD. P-70900

3559—GERMANY—Licenses to produce **small equipment for cleaning automotive metal parts.** Apparatus would utilize water and detergents; be sold to garages and repair shops. Firm is large machinery manufacturer, employs about 1,800. Office of International Investment, Dept. of Commerce, BIC-878, Washington, D.C. 20230. WTD. P-70902

3585—NETHERLANDS—Seeks to expand present line of air conditioning equipment through licenses. Wants to produce **roof ventilators, intake and outlet grids and related air conditioning components.** Employs around 70; prepared to make additional capital investment if necessary. Luchttechnische Industrie Loosdrecht N.V., Industrieweg 18, P.O. Box 35, Nieuw Loosdrecht. WTD. P-70904

3613—SOUTH AFRICA—License to manufacture molded case **circuit breakers.** Firm is subsidiary of company engaged in production of electric lamps, lighting fixtures and welding equipment. S.A.E.D. (Pty.) Ltd., P.O Box 7125, Langlaagte, Transvaal. WTD. P-70903

3999—BRAZIL—Firm seeks agreement to produce **fire-extinguishing equipment** for automobiles in response to recent Brazilian government regulations requiring all automobiles in circulation in 1971 to carry fire extinguishers. Firm has 15 years experience in the metallurgical field and has reported 65% share of Brazil's market for tubular automobile seat parts. Firm reports total assets $2.5 million. Janusz Niklewski, Superintendent, Resil S.A. Industria e Comercio, Caixa Postal 30908, Sao Paulo, SP, Brazil. WTD. P-70920

6794—SWITZERLAND — Businessman, reportedly with good reputation and well-established trade contacts, seeks to represent U.S. firms who want to **license and franchise in Europe,** especially in the service industry, leisure-time, and entertainment fields. Commission will only be charged to the European firms not the U.S. one. Dr. K. Walter Baumann, Himmelistrasse 15, 8700 Kusnacht, Zurich. WTD. P-70901

Swiss Firm Will Manufacture Several Items By Licensing

A Swiss firm, Remaco AG, is seeking manufacturing licenses for **sporting goods, hobby materials and recreational equipment** (SIC 3949, 3952, 3999, 3941); **mobile homes** (SIC 3791); **household appliances** (SIC 3630); **swimming pool equipment** (SIC 3569, 3589); and **oil and gas heaters** (SIC 3433).

Remaco is the wholly-owned subsidiary of ELCO, a Swiss holding company with annual sales of $30 million which employs 2,000 people; it has offices in 22 countries.

Write Mr. Looser, Pres., Remaco AG, Steinenschanze 4, 4000 Basel, Switzerland.

Licensing in U.S.

2499—SWITZERLAND—Swiss firm offers for manufacturing various **household goods** such as automatic clothes hanging line, one piece plastic clothes pegs made in form of toy animal, combined sponge and abrasive dishwashing and scrubbing movable pads mounted on plastic handles. The firm would also like to consider manufacturing U.S. novelty housewares under license. File 1838-R

2661—ENGLAND — Cardboard designed and developed for the container business. Board has resin bonded plywood core faced on both sides with a strong glass reinforced polyester skin. Reportedly, it is corrosion-resistant and impervious to acids and alkalis and does not retain cargo odors as their flush interior surfaces clean easily. A potential is felt to exist in the building industry for its use as dividing walls. The manufacturing process involves heat and pressure on a continuous, controlled, automatic production line. File 1855-R

3449—SWITZERLAND—A house construction system is offered by Swiss patent, development and marketing firm. The system uses heavy construction materials to manufacture walls on the building site. System is versatile, efficient, and not a prefabricated system. Over 2,000 houses have been built in France using this system. File 1878-R

3569—SWITZERLAND — Automatic **hydraulic air filters** are offered. The equipment is used for the collection, neutralization and recovery of acidic and oil vapors, dust and similar gaseous wastes produced in industrial facilities. The filtering capacity reportedly is very high due to a special system provoking six different air/water revolutions which separate the air from the waste particles. The equipment is also successfully used in sand blasting, polishing, grinding, spinning and stone cutting operations. File 1952

3572—SWITZERLAND — Manufacturing and distribution rights on a worldwide basis is offered for a **compact front feed typewriter.** It is designed for typing on stiff documents like passports, certificates, family records or index cards; keyboard is similar to an ordinary typewriter, two writing specimens available—block and check types. Weighs 18 pounds. File 1953

3585—WEST GERMANY—This German company seeks a licensee for its two-stage hermetic compressors and condensing units for refrigeration plants. File 1954

3949—SWEDEN — Private and military training **shooting target systems** with automatic features offered to make and sell in the U.S., Canada and Latin America. The equipment is patented in 16 countries and the U.S. It has also been demonstrated at the Infantry School at Fort Benning, Ga. File 1955

3999—SWITZERLAND — Manufacturing rights for a **folding sunshade** to be made of paper or plastic materials is offered. Modern pattern designs are available so the shades may be used as attractive advertising means or as garden and camping parasols. Costs of this sunshade is about one-third the cost of usual models. The same invention is also used in a fan shaped folding Christmas tree stand protecting the floor and not requiring further treatment of tree stem. File 1956

Future Construction Summary Available To U.S. Companies

A quarterly summary of future construction projects abroad, contract award stories and significant foreign government tenders published in the *International Commerce* and *Commerce Business Daily* during July, August and September 1970 is available to U.S. firms from the International Liaison & Trade Opportunities Staff, BDC-541, Dept. of Commerce, Washington, D.C. 20230. A pre-addressed mailing label should be included with the request to facilitate processing and mailing.

The summary, which may also be reviewed at any Commerce Field Office, alphabetically lists project summaries by country in five classes: airport, seaport, railroad and highway projects; hydro and thermal electric plant and irrigation projects; hospital, hotel and housing projects; industrial plant projects, and comprehensive development projects. Whenever possible, names of contractors and responsible agencies are cited, as well as original publication dates.

Argentina Seeks Joint Venture For Campan Newsprint Plant

Argentina is expected to announce a call for bids on construction of a newsprint plant reportedly located in Campan, Province of Buenos Aires. The establishment and operation of the plant is open for a joint-venture arrangement preferably with 51% equity reserved for Argentine interests. If the majority of the capital is Argentine, the Government can make available special government funds for financing up to 33% of the required capital stock.

The plant will use the mechanical or semi-chemical methods. Chemical pulp will be imported into Argentina, but after ten years, the plant expects to produce it. The facility will utilize 80 to 90 percent short fiber wood from the Delta del Parana region of Argentina and is expected to produce 700 tons per day of newsprint for two years, then increasing to 1,000 tons per day.

For additional information write the Office of International Investment, Dept. of Commerce, BIC-878, Washington, D.C. 20230.

UNIDO Nairobi Conference Will Present 100 Proposals

A UN investment conference will meet at Nairobi, Kenya from Nov. 30 to Dec. 4. African businessmen and government officials from over 20 countries will present more than 100 project proposals at the investment promotion meeting.

The seminar, sponsored by the United Nations Industrial Development Organization, will provide an occasion for potential foreign investors to review specific opportunities with African delegates. U.S. firms are also encouraged to present their proposals at the seminar.

Copies of project proposals and further information about the meeting can be obtained from A. J. Aizenstat, Dir., UNIDO Office, UN Bldg., New York, N.Y. 10017.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the International Liaison and Trade Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms are interested are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers used extensively by Government and industry.

U.S. firms should also be aware that the listing in *Commerce Today* of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230 or from any Commerce Field Office.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Miscellaneous nonmetallic minerals, except fuels

14990—ENGLAND—Grade 4 vermiculite, Crude Ore, offtake 150 tons per annum; or its equivalent as fully exfoliated vermiculite. Henry Wiggin & Co. Ltd. Enquiry # 5514 (mfr.), Attn.: R. Robinson, Buyer. WTD 8/70.

Meat products

20115 — KOREA — Crude lard (hog grease). End user's monthly requirement estimated at 50 to 100 M/T. Direct purchase & agency. Sung Il Trading Co. (importer, dist., agent), I.P.O. Box 1183, Seoul. WTD in prep.

20119—TAIWAN—Raw hides; cow, buffalo hides. Ching Fa Products Co. (importer), P.O. Box 12257, Taipei. WTD 12/69.

Food preparations

20941—KOREA—Beef tallow, edible for confectioneries and/or reprocessing into margarine. End user's monthly requirement estimated at 100 M/T. FFA, MIU, color, titer, bleach will be specified on purchase orders. Direct purchase & agency. Sung Il Trading Co. (importer, dist., agent), I.P.O. Box 1183, Seoul. WTD in prep.

20961—KOREA—Shortening and cooking oils—hydrogenated marine (fish) oil to be reprocessed into margarine. End user's monthly requirement estimated at 100 M/T. Melting point—34 to 36 (C) or 36 to 39 (C) summer only; FFA—0.1 maximum. Direct purchase & agency. Sung Il Trading Co. (importer, dist., agent), I.P.O. Box 1183, Seoul. WTD in prep.

Broad woven fabric mills, cotton

● 22100—CYPRUS—35,000-50,000 yards annually of drill, khaki material composed of cotton and synthetic fibers suitable for making police summer uniforms. Material must be lightweight, cool, durable, easy to clean, with good crease retention. Submit samples and quote c.i.f. Cyprus prices. Tender No. QM/112/8. Police Quartermaster, Cyprus Police Force, Nicosia.

Broad woven fabric mills, manmade fiber, silk

22218—MALAWI—Cotton and cotton/man-made fiber trouser materials; all grades, including seconds, off-cuts; men's necktie textiles. Samples, prices in £ sterling requested. London Agencies (importer, mfr., retailer) P.O. Box 870, Blantyre. WTD in prep.

Yarn, thread mills, products

● 22800—BURMA—8,000 kgs. of cotton thread 30/5 x 3, average strength 6.5 kgs., divided into 1 kg. rolls on conical paper centers. Shipment in May 1971. Tender No. 1(T)IRM-CM (70-71)E; bid deadline 4 p.m., Dec. 31. Chairman, Cement Mills, Industrial Development Corp., Thayetmyo, Burma. Copies of tender available from Office of Textiles, BDC-686, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-5238).

22810 — GUATEMALA — Cotton, manmade fiber, silk yarns. Correspondence requested in Spanish. Pierino E. Pinzani (importer, agent, retailer), Via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

Textile goods

22950 — NIGERIA — Artificial, synthetic leather; imitation leather, P.V.C. leather cloth except rubber. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

Household furniture

25116—JAPAN—Infants' and children's furniture including high chairs, drawers. Lotte Bussan Co., Ltd. Ben Yoshikoshi, Asst. Mgr. (importer, dist., agent), Sumitomo Bldg., 1-807-1 Tsunohazu, Shinjuku-ku, Tokyo 160. WTD 7/69.

Paper mills

● 26200—BURMA—Chairman, Industrial Development Corp. requests bids on 1,160,000 kgs natural kraft paper for making cement bags and 5,000 kgs of crepe paper tape for sewing cement bags. Copies of the tender containing conditions and specifications are available from the U.S. Dept. of Commerce, BDC, Room 5099, Washington, D.C. 20230 ★ (202-967-3530). Bid deadline Dec. 31.

Paperboard mills, products

26310 — NIGERIA — Coated white lined folding box boards; chipboard; kraft. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

26312—CANADA—One-side coated low-density white sulfite board in 10 and 12 point thickness to be used for wrapping soft goods, e.g. hosiery. Present requirements approximately 30 tons a wk.; shipments could be received in roll or sheet form. Delta Printing & Advertising Ltd., (mfr., exporter, offset printing), 9090 Park Ave., Montreal, Quebec. WTD 10/70.

Paperboard containers, boxes

26552—NIGERIA—Bobbins, spools, similar supports of paper. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

Industrial chemicals

● 28100—BURMA—Aldrin dust, 2.5%, 1,000 m.t., in bags of 25/30 kg. each, with an outer raw jute bag and inner 6" mil. polythene bag; Endrin, 19.5% EC, 5,000 imperial gal. in polythene jerry cans or aluminum containers or steel drums, of 5 imperial gal. each; Malathion, 10,000 imperial gal., 90% technical 93/95%, in polythene jerry cans or aluminum containers or steel drums of 1 imperial gal. each; Gammexane DO 25, 96 m.t. in bags of 50 kg. each, with an outer new jute bag

and inner 6" mil. polythene bag; and Endrin, 5,000 imperial gal., 19.5% EC, in polythene jerry cans or aluminum containers or steel drums of 1 imperial gal. each. Bid deadline Nov. 30. Tender No. ARDC(F) 70/71(2). Separate bids for each item together with 2 pound samples, 2 jute bags and 2 polythene bags for each item. Chief Executive Officer, Agriculture (1), Agricultural & Rural Development Corp., 459 Prome Rd., Rangoon. Chemicals Div., BDC-665, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-3910). Review copy soon available at the Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

● **28100—KOREA**—Supply of citric acid, 35,000 kgs. Shipments to arrive on Jan. 15 and not later than Jan. 30. Tender No. KFX-0195-PIII; bid deadline 2:00 p.m., Nov. 24. Office of Supply, Government of Korea, Seoul. Tender with specifications available from the Chemicals Div., BDC-665, U.S. Dept. of Commerce, Washington, D.C. 20230. ★ (202-967-3464). Copy of tender is available for review at Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

Synthetic materials

28211—NETHERLANDS — Non-shrinkable polyester films with fixed mask or raster (measure indication), for electronics industry. Technische Handelsonderneming "Romex" (importer, dist.), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

28212—NIGERIA—Regenerated cellulose sponge. Gulabani & Co. (importer, agent, retailer), Gulabani & Co., 42 Ereko St., P.O.B. 1628, Lagos. WTD in prep.

28213—KOREA — Polyethylene resins, high virgin or pure grade—monthly requirement—40 M/T; polypropylene resins; monthly requirement—40 M/T; polyvinyl chloride resins; monthly requirement—20 M/T. Above resins must be suitable in manufacture of tubular film package for confectioneries. Direct purchase & agency. Sung Il Trading Co. (importer, dist., agent), I.P.O. Box 1183, Seoul. WTD in prep.

28213—NIGERIA — Plastic materials sheets. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

28214 — NETHERLANDS — Punchable epoxy-glass. Technische Handelsonderneming "Romex" (importer, dist.), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

Drugs

28315—PAKISTAN—Biological preparations for veterinary use. Shalimar Agencies (importer, agent), Al-Khush Bldg., Bank Sq., P.O. Box 808, Lahore. WTD 4/70.

28332—PAKISTAN — Drugs of animal origin including dried glands, other animal organs; tissue, extractions thereof. Shalimar Agencies (importer. agent), Al-Khush Bldg., Bank Sq., P.O. Box 808, Lahore. WTD 4/70.

28332—TAIWAN—White wild ginseng, cinnabar. Double Happy Trading Co., Ltd. (importer), P.O. Box 1598, Taipei. WTD 10/70.

28332—THAILAND — Medicinal chemicals, dichloroethane, palmitoyl chloride, pyridine, methyl dichloroacetate, in bulk. Requests catalogs, c.i.f. Bangkok prices. Lepetit (Thailand) Co., Ltd. (dist., mfr.), 3/6 Sukhumvit Rd., Bangna, P.O. Box 11-6 Bangkok. WTD in prep.

28349 — PAKISTAN — Pharmaceutical preparations for veterinary use, especially hormones, tonics for race horses. Shalimar Agencies (importer, agent), Al-Khush Bldg., Bank Square, P.O. Box 808, Lahore. WTD 4/70.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28424—GERMANY — Polishing cloths, papers. Prices c.i.f. European ports. Jean Wirtz (mfr., retailer, exporter), 73 Charlottenstrasse, 4 Duesseldorf. WTD 9/70.

Paints, varnishes, lacquers, enamels

28516—NETHERLANDS — Rust preventatives based on asphalt, wax, grease, oil, etc., for automotive industry. Representations required for Benelux countries; c.i.f. terms requested. NEMACO (importer, dist., mfr.), 77 hs Pretoriusstraat, Amsterdam. WTD 10/70.

Agricultural chemicals

● **28700—BURMA** — Chemical fertilizer, 2,860 m.t., total, all granular form and free from excessive lumps, as follows: A) Mixed fertilizer, 610 tons, mixture "M" (minimum 9.9% N, 16.9% P_2O_5, 3.6% K_2O and 2% M90—M90 believed to be MgO); B) mixed fertilizer, 1,250 tons, mixture "B" (minimum 10.9% nitrogen and 18% P_2O_5); and C) ammonium phosphate, 1,000 tons (minimum 16% nitrogen and 20% P_2O_5). Packing, 50 kg., net, in new jute bags with polyethylene inner bag of 0.006 mil. All bags must be of uniform weight and size. Tender No. ARDC(F) 70/71; bid deadline Nov. 30. Separate bids with 2 pounds sample of fertilizer, 2 jute and polyethylene bags to the Chief Executive Officer, Agriculture, Agricultural & Rural Development Corp., 4J9 Prome Rd., Rangoon. Copies of official tender notice soon available at Chemicals Div., BDC, Dept. of Commerce, Washington, D.C. 20230 (202-967-3468).

Chemical products

28911—NIGERIA—Glue. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

Petroleum refining

● **29100—KOREA** — Bids requested to supply diesel railcar torque converter lubricating oil in the amount of 109,600 liters and steam cylinder lubricating oil in the amount of 151,200 liters. Bid Tender No. KFX-0183-PIII, P.R. No. 70-G-141 & 70-G-146; bid deadline Nov. 20 at 2:00 p.m. Office of Supply, Government of Korea, Seoul. Specifications available from Petroleum & Coal Div., BDC-673, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-2355).

Plastic products

● **30700—SUDAN**—Bids requested for polythene pipes with varying lengths and diameters. Bids due Nov. 28 at noon to the Assistant Gen. Mgr. (Supplies), The Sudan Gezira Board, Barakat, Sudan. Tenders available on loan from the Chemicals Div., BDC, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-3381). A review copy is available at the Dept. of Commerce Field Office, 11444 Federal Office Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

Glass, glassware

32291—ISRAEL — Table, kitchen, art, novelty, glassware. Direct purchase & agency. Yigal Stern (importer, dist., agent), 51, Yehuda Halevy St., Tel Aviv. WTD in prep.

Abrasives, asbestos, nonmetallic mineral products

32913—NIGERIA—Abrasive paper. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

32950—SWEDEN—Kaolin, ground, 200-500 metric tons. Quotations c.i.f. Swedish port. Direct purchase & agency. Gunnar B. Jansson AB (importer, dist., agent), Framnasbacken 8 B, Box 1018, S-171 21 Solna 1. WTD in prep.

Steel mill products

● **33100—ALGERIA** — Supply rail tie clips of various quantities, standards. Tender for "Supply of Rail Tie Clips"; bid deadline Dec. 21. SNCFA, Alger. Copies of tender documents available from Monsieur le Chef du Service de la Voie (Approvisionnements) SNCFA, 21-23 Boulevard Mohamed V, Alger.

● **33100—BURMA** — Supply mild steel bars, including square, angle and channel of various sizes, quantities. Tender No. MEIC / B.R. / 15(T)13(ML)70-71; bid deadline Dec. 3. Railway Board, Rangoon. Copies of tender documents available from Iron & Steel Div., BDC-669, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4412).

● Supply drill twist H.S.S. parallel shank, morse taper shank, straight shank and square taper shank of various quantities, sizes. Tender No. MEIC/B.R./13(T)-17(ML)70-71; bid deadline Dec. 17. Railway Board, Rangoon. Copies of tender documents available from Iron & Steel Div., BDC-669, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4412).

● Supply mild steel round bar of various specifications, quantities. Tender No. MEIC / B.R. / 15(T)15(ML)70-71; bid deadline Dec. 7. Railway Board, Rangoon. Copies of tender documents available from Iron & Steel Div., BDC-669, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4412).

● Supply mild steel round bars and mild steel flat bars of various specs. Tender No. MEIC/B.R./15(T)14(ML)70-71; bid deadline Dec. 3. Railway Board, Rangoon. Copies of tender documents available from Iron & Steel Div., BDC-669, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4412).

● **33100—IRAN** — 20,000 kgs. 26 cms. channeled iron of various specs. Tender No. 1394/49; bid deadline Dec. 7. Iranian State Railways, Rahan. Copies of tender documents available from Iranian Economic Mission, 2233 Wisconsin Ave., NW., Washington, D.C. 20007.

● **33100—KENYA**—Supply of approx. 39km. of 700mm. nominal dia. pipe including joints and fittings for raw and treated water pipelines; and supply of approx. 5km. of 700/500mm. nominal dia. pipes including joints and fittings for trunk distribution mains. Tender for

"Supply of Pipes & Fittings"; bid deadline Jan. 11. City Council of Nairobi. Copies of tender documents may be obtained from Howard Humphreys & Sons (East Africa), Sadler House, P.O. Box 30156, Nairobi.

33129—BRAZIL—Stainless steel sheets, plates, wires. Feital & Cia. Ltda. (importer), Rua Ubaldino do Amaral, 20, Rio de Janeiro—GB. WTD 10/70.

33150—NIGERIA—Iron steel wire. Gulabani & Co. (importer, agent, retailer), 42 Ereko St., P.O. Box 1628, Lagos. WTD in prep.

33150—PAKISTAN—Carbon Steel wire, with following analysis, to be used in the manufacture of healds: C—0.60; Si—0.269: Mn—0.45; P-0.611; S—0.0249; size: 27, 30, and 32 SWG. Essemdeesons Enterprises (importer, mfg., agent), 17 Lawrence Rd., Lahore. Cable: MEDSPRISES. WTD in prep.

Rolling, drawing, extruding of nonferrous metals

● 33500—THAILAND—Supply of multiconductor control cable. Bid deadline Dec. 3. Contact Purchases & Stores Dept., Metropolitan Electricity Authority, 121 Chakraphet Road, Bangkok.

33510—NIGERIA — Copper wire. Gulabani & Co. (importer, agent, retailer), Gulabani & Co., 42 Ereko St., POB 1628, Lagos. WTD in prep.

Cutlery, handtools, general hardware

34231 — GERMANY — Tools, mechanics hand service; "new to market". Prices c.i.f. European ports. Direct purchase & agency. P.W. Weidling & Sohn KG (importer, dist., agent, exporter), An der Kleimannbruecke 17, 44 Muenster. WTD 9/70.

34250—ITALY—Hand and machine operated metal saw blades. LA SOLO di Massimo Fiorati (dist.), Via Montevideo 19, 20144 Milan. WTD 9/70.

Fabricated metal products

34941—GUATEMALA—Compressed gas cylinder valves, regulators. Correspondence requested in Spanish. Pierino E. Pinzani (importer, agent, retailer), Via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

34942—SINGAPORE—Cocks, valves for petroleum industries. Choo Moon Hwa, Man. Dir., Crawford (S) Pte. Ltd. (importer, agent), 4809 Beach Rd., Singapore 7. WTD in prep.

34943—GERMANY—Valves and fittings for steam, gas, etc.; special valves, fittings for pipe construction; hose clamps, fittings. Prices c.i.f. European ports. Direct purchase & agency. Bormann & Neupert (importer, dist., agent), 30 Volmerswerther Strasse, 4 Duesseldorf. WTD 9/70.

34943 — NETHERLANDS — Ball valves. Exclusive representations. N. V. Leeuwtechniek (importer, dist.), 25 Rieteweg, P.O. Box 68, Zwolle. WTD 10/70.

Engines, turbines

● 35100—TAIWAN—Supply and install 500 mw turbine generator in Talin Power Station, Kaohsiung. Proposals will be considered only from suppliers who have or are manufacturing tandem compound reheat turbine generator unit operating under steam conditions of 2,400 PSIG, 1,000 F/1,000 F or higher and will have in commercial operation a unit of 500 mw or larger, 3600 rpm by Dec. 31, 1972; or alternatively who have in satisfactory service a unit of at least 300 mw, 3600 rpm as of Oct. 31, 1969; and additionally have or will have in operation by Dec. 31, 1972 a unit of at least 500 mw, 3000 rpm. Specifications available from Gibbs & Hill Inc., 393-7th St. Ave., New York, N.Y. 10001. IBRD financing.

Mining, materials handling machinery

● 35300—GREECE — One gantry crane for handling containers with a hoisting capacity of 41 tons. Bid deadline Jan. 7. Piraeus Port Authority (OLP), Lykiardopoulou Bldg., Akti Miaouli & II Merarhias St., Piraeus. Specifications available on short term loan from General Industrial Equip. Div., BDC-647, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-5585).

● 35300—SUDAN — Well boring equipment including: seamless steel A.P.I. casing 250 feet O.D. 8⅝ inches x 0.304 inches (7.72 m.m.); A.P.I. casing 50 feet O.D. 8⅝ inches x 0.304 inches (7.72 m.m.) manufactured from J 55 steel; one casing shoe 8⅝ inches; one electric driven turbine pump unit; nine complete A/C-6/1 pump driven by Lister engine LR I Diesel. Bid deadline noon, Nov. 26. Requested by Assistant Gen. Man. (Supplies), Sudan Gezira Board, Barakat. Review copy of specifications available at the General Industrial Equip. Div., BDC, Dept. of Commerce, Washington, D.C. 20230 (202-967-5566).

Metalworking machinery

35414—GERMANY—Grinding, polishing machines for use in laboratories. Prices c.i.f. European ports. Jean Wirtz (mfr., retailer, exporter), 73 Charlottenstrasse, 4 Duesseldorf. WTD 9/70.

35421—TURKEY—One steel strip cutting installation with maximum roll weight of 10 tons, material gauge thickness of 0.50-5 mm., maximum strip width of 1100 mm. Firm requests alternative proposals for cutting capacity, based on 8-hr./day operation. Steel pipe making machinery to fabricate pipes having outer diameter ranging from 8-32 mm.; gage thickness 0.60-2 mm. Welding device to be of high frequency; tolerances of ±5% in outer diameter and ±10% in thickness acceptable. Profil Boru Sanayi A.S. (mfr.), Gumussuyu, Caddesi, Ongan Apartman No. 53/2, Gumussuyu, Taksim, Istanbul. WTD 10/70.

35423 — PHILIPPINES — Machine for making aluminum screws, rivets. Jalwindor Manufacturers, Inc. (importer, dist., mfr.), 292 Roosevelt Ave., San Francisco del Monte, Quezon City. WTD 6/69.

35484—GERMANY — Automobile maintenance equipment, tools; "new to market". Prices c.i.f. European ports. Direct purchase & agency. P.W. Weidling & Sohn KG (importer, agent, exporter), An der Kleimannbruecke 17, 44 Muenster. WTD 9/70.

35485 — PHILIPPINES — Machine for drawing aluminum wire. Jalwindor Manufacturers, Inc. (importer, dist., mfr.), 292 Roosevelt Ave., San Francisco del Monte, Quezon City. WTD 6/69.

Special industry machinery

● 35500 — CEYLON — Varying sizes, quantities of shuttles, pirns, bands, reeds, leather belting, etc. Tender number not issued; bid deadline Dec. 29. Chairman, Tender Board, Dept. of Small Industries, Hemas Bldg., Colombo 1. Tender documents available on short term loan from the General Industrial Equip. Div., BDC, Washington, D.C. 20230 ★ (202-967-5585).

● 35500—INDIA — A complete plant consisting of two self contained units of 65 tons/month capacity, for the manufacture of nitrocellulose. Tender No. SDP/107/92/261/6.7.70/III; bid deadline Dec. 18. Directorate General, Supplies & Disposals, Jeevantara Bldg., Parliament St., New Delhi. Specifications available on short term loan from General Industrial Equip. Div., BDC 647, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-5585).

● One complete plant consisting of two self contained units of 80 tons/month capacity each for manufacture of nitroglycerine/nitrocellulose-paste by wet mixing process. Tender No. SOP/107/92/262/6.7.70/III; bid deadline Dec. 22. Directorate General, Supplies & Disposals, Jeevantara Bldg., Parliament St., New Delhi. Specifications available on short term loan from the General Industrial Equip. Div., BDC-647, Washington, D.C. 20230 ★ (202-967-5585).

● 35500—EGYPT (UAR)—Purchase and supervision of erection of a complete plant for the manufacture of cemented leather footwear at Bassateen near Cairo: All machines must be electrically driven from an electricity supply of 380 volts, A.C. 3-phase, 50 cycles per second, single phase, 220 volt is also available. The plant is to have an annual capacity of 1.5 million pairs of shoes. Tender No. 10/70; bid deadline Jan. 9. General Organ. for Industrialization, 6, Khalil Agha St., Garden City. Specifications available on short term loan from General Industrial Equip. Div., BDC-647, Washington, D.C. 20230 ★ (202-967-5585).

35512 — JAPAN — Tuna-fish cutting and slicing machinery, commercial type. Machine should cut, slice tuna-meat into "square size" (packaging type) for retail packaging. Nittsu Shoji Co., Ltd., Yasushi Sawayama, Mgr., Foreign Trade Dept. (importer, dist., mfr.), 12-9 Soto Kanda 3-chome, Chiyoda-ku, Tokyo, 101. WTD in prep.

35513—KOREA—Complete corn mill machinery, facilities for assembly process including: corn drying; corn hulling; corn flour milling; feed mix processing. Height of assembled facilities should not exceed 10 meters, should be convenient for mounting, dismounting; easily transportable. Brochures, quotations requested. Hankuk Nongsan Jinhung Chusik Hoesa (Korea Agricultural Products Promotion Co.) (importer, dist., mfr.), 490, 5-ka, Chong-ro, Chongro-ku, Seoul. WTD in prep.

35521—GUATEMALA—Circular knitting machines. Correspondence requested in Spanish. Pierino E. Pinzani (importer, retailer), via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

35540—SINGAPORE — Machinery for making paper with fiber backing. Tan Eng Sing, Man. Dir., Paper Produce (M) Bhd. (importer, distributor, mfr.), 394 Kim Chuan Rd., Singapore 19. WTD 10/69.

35592—THAILAND — Steel ingot continuous casting equipment. Requests catalogs, c.i.f. Bangkok prices, terms.

Bangkok Iron & Steel Works Co., Ltd. Attn: Udom Pichitpongchai, Man. Dir. (mfr.), 627-633 Klong Tom Lane, Jawaraj Road, Bangkok. WTD in prep.

General industrial machinery

35642—NETHERLANDS—Industrial gas cleaning and dust collection systems; SO., absorption systems; scrubbing systems; filters for air conditioning, clean rooms, ventilation; complete white room equipment; catalytic after-burners. Representations requested for Netherlands, Europe. SF Lucht- en Warmtetechniek N.V., Attn.: J. Groeneboom (importer, dist., mfr.), 7 Natriumweg or P.O. Box 192, Amersfoort WTD 9/70.

35671—THAILAND—Electrical arc steel furnace with capacity of 30 to 40 tons per charge. Requests catalogs, c.i.f. Bangkok prices, terms. Bangkok Iron & Steel Work Co., Ltd. Attn: Udom Pichitpongchai, Man. Dir. (mfr.) 627-633 Klong Tom Lane, Jawaraj Road, Bangkok. WTD in prep.

35672 — PHILIPPINES — Heat treating machine; melting furnace for aluminum plant. Jalwindor Manufacturers, Inc. (importer, dist., mfr.), 292 Roosevelt Ave., San Francisco del Monte, Quezon City. WTD 6/69.

35673—PORTUGAL—Induction furnaces, medium frequency, 1,500 kilos (approx. 3,300 lbs.) capacity. Paula Dias & Filhos, Lda. (foundry), Rua Comandante Rocha e Cunha, Aveiro. WTD in prep.

Computer display equipment

35733—GERMANY—Computer display equipment, in and output printers. Olympia Buerosysteme GmbH (importer, dist., mfr.), Hauptstr., 6232 Neuenhain. WTD 5/70.

Service industry machines

35851—SINGAPORE — Dry ice equipment. Erik Hamilton, Commercial Dev. Corp. (business consultant), 20-B Tomlinson Rd., Singapore 10. WTD in prep.

35852 — NETHERLANDS — Complete white room equipment; filters for air conditioning. Representations requested for Netherlands, Europe. SF Lucht- en Warmtetechniek N.V., Attn.: J. Groenboom (importer, dist., mfr.), 7 Natriumweg or P.O. Box 192, Amersfoort. WTD 9/70.

Electric transmission and distribution

● **36100—ARGENTINA**—Supply, install & start-up four 125 MVA 3-phase transformers and 12 overvoltage dischargers for Futaleufu Hydro Project. Tender No. 90; bid deadline Dec. 21. Specifications available in Spanish for U.S. $100 from Agua y Energia Electrica, Corrientes 531, 1er Piso, Buenos Aires. Official budget for this project is $1.6 million. Copy of specifications in Spanish available for reference at the Dept. of Commerce, BDC, Room 5886C, Washington, D.C. (202-967-4188).

● Supply three 40 MVA, 3-phase indoor/outdoor type transformers. Tender No. L1-31694; bid deadline Nov. 30. Specifications available for approximately U.S. $12.50 from CIAE. Departmento Compras, Suministrosy y Transporters San Jose 140, 42 Piso, Oficina 1, Buenos Aires. IDB financing.

● Supply and install four 3-phase transformers and 12 dischargers of overvoltage. Tender No. 90/70; bid deadline Dec. 21. Specifications available for U.S. $100 from Administracion General de Agua y Energia Electrica, Corrientes 531-1er. Piso, Buenos Aires. Budget for equipment is $1.7 million.

● **36100—IRAN**—Supply two sets rectifier, one set lead acid battery, one automatic changeover switch; Tender No. 1405/49; bid deadline Dec. 21. Iranian State Railways, Tehran. Specifications available from Dept. of Commerce, BDC-651, Room 5886C, Washington, D.C. 20230 ★ (202-967-4188).

● **36100—LIBYA** — Supply 3 power generating units, each with capacity of 60 mw, first stage of West Tripoli Power Plant. Tender No. 56/70-71; bid deadline Feb. 28. Tenderers must be locally registered as first class international contractors. Tenders available for $280 (two copies) from the Secretary, Tenders Board, Electricity Corp. of Tripolitania, Halab St. No. 1, Tripoli. Tenders must be accompanied by initial guarantee of U.S. $280,000.

36113—TAIWAN — Electrical measuring equipment. Sheng Chin Trading Co., Ltd. (importer, agent), 188, Kunming St., Taipei. WTD 10/69.

36122—TAIWAN—Power transformers. Sheng Chin Trading Co., Ltd. (importer, agent), 188, Kunming St., Taipei. WTD 10/69.

36132—TAIWAN—High tension air circuit breaker. Sheng Chin Trading Co., Ltd. (importer, agent), 188, Kunming St., Taipei. WTD 10/69.

Electrical industrial apparatus

36210 — SWITZERLAND — Torque converters for maximum 20 hp and 3500 rpm. Direct purchase & agency. Vektor AG; Attn: Mr. Ott (mfr., agent), Riesbachstrasse 61, 8034 Zurich. WTD 3/70.

Household appliances

36311—GUATEMALA—Household stoves, ovens; electric, non-electric. Correspondence requested in Spanish. Pierino E. Pinzani (importer, agent, retailer), Via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

36321—GUATEMALA — Household refrigerators. Correspondence requested in Spanish. Pierino E. Pinzani (importer, agent, retailer), Via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

36332—NETHERLANDS—Parts, components, attachments for household laundry equipment such as electric motors, wire, microswitches, thermostats, timers, paint, plastics driving belts, iron & steel sheet, etc. Direct purchase from manufacturers. Also interested in license manufacture. N. V. Machinefabriek Fred A. Schuurink & Co. Attn.: Drs. G. J. Schuurink, Mgr. (importer, dist./exporter, mfr.), 170 Speelhuislaan, or P.O. Box 214, Breda. WTD 10/70.

36344—NETHERLANDS—Parts, components, attachments for electric household appliances such as electric motors, wire, microswitches, thermostats, timers, paint, plastics, driving belts, iron & steel sheet, etc. Direct purchase from manufacturers. Also interested in license manufacture. N. V. Machinefabriek Fred A. Schuurink & Co. Attn.: Drs. G. J. Schuurink Mgr. (importer, dist./exporter, mfr.), 170 Speelhuislaan, or P.O. Box 214, Breda. WTD 10/70.

36393—NETHERLANDS—Parts, components, attachments for other household appliances such as electric motors, wire microswitches, thermostats, timers. paint. plastics, driving belts, iron & steel sheet, etc. Direct purchase from manufacturers. Also interested in license manufacture. N.V. Machinefabriek Fred A. Schuurink & Co. Attn.: Drs. G. J. Schuurink, Mgr. (importer, dist./exporter, mfr.), 170 Speelhuislaan, or P.O. Box 214, Breda. WTD 10/70.

Electronic components, accessories

36741 — NETHERLANDS — Integrated microcircuits. Representations requested for Netherlands, W. Germany, Sweden. Technische Handelsonderneming "Romex" (importer, dist.), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

36795—NETHERLANDS—Flexible copper clad, multi-conductor tape cable. Representations requested for Netherlands, W. Germany, Sweden. Technische Handelsonderneming "Romex" (importer, dist.), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

Motor vehicles and equipment

37113—KOREA—Fire department vehicles, especially hook-and-ladder trucks, high pressure hose trucks, monitor trucks, other vehicles with equipment capable of fighting fires above ten stories. Contact Capt. Huh Hwan, Chief, Fire Fighting Div., Seoul Metropolitan Police Hdqtrs., 17, 4-ka, Namaemun-ro, Chung-ku, Seoul; or Capt. Choi Woon Taik, Dir., Fire Fighting Div., National Police Hdqtrs., Ministry of Home Affairs, 195, 2-ka, Ulchi-ro, Chung-ku, Seoul.

37130—TAIWAN — Amphibious vehicles to be used to conduct line plant rehabilitation work of telecommunications aerial lineplants or electric power transmission lines for areas inundated or flooded by heavy rains during typhoon season. Sun Moon Star Co., Ltd. (importer), 81 Neichiang St., Taipei. WTD 9/69.

Engineering, laboratory, scientific, research instruments

● **38100—KOREA**—Supply of high temperature press system; atomic absorption spectrophotometer; pulverizer, centrifuge, shaker, vacuum pump, balance, burner, etc.; electronic navigation system. Tender No. SLC-0191-PII (Part I); bid deadline Nov. 26. Invited by the Office of Supply, Government of the Republic of Korea, Seoul. Terms and specifications available on loan from the Scientific & Business Equip. Div., BDC-653, Dept. of Commerce, Washington, D.C. 20230. ★ (202-967-2939).

Instruments for measuring, testing physical characteristics

● **38200—INDIA**—Supply of four rotor temperature indicators in two categories to measure and signal the temperature of rotor winding of hydro-generator. Tender No. S-104/8-190/P-8; bid deadline not indicated. Invited by Controller of Stores & Purchase, Bharat Heavy Electricals, Ltd., Ranipur, Hardwar, Uttar Pradesh, India. Terms and specifications available on loan from the Scientific & Business Equip. Div., BDC-653, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-2939). Review copy available at the Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

● **38200—PAKISTAN**—Supply of two soil test apparatus with carrying cases,

and one set of hydraulic universal testing machine, 400,000 pound capacity, with accessories. Tender No. S-10/36(69-70); bid deadline Dec. 7. Invited by Director of Supply, Government of East Pakistan, 48 Motijheel Commercial Area, Dacca-2, East Pakistan. Cable: "SUPPLY," Dacca. Terms and specifications available on loan from the Scientific & Business Equip. Div., BDC-653, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-2939). Review copy available at Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Cal. 94102 (415-556-5868).

38216—NETHERLANDS — Air pollution measuring, detecting equipment. Representations requested for Netherlands, Europe, SF Lucht- en Warmtetechniek N.V., Attn.: J. Groeneboom (importer, dist., mfr), 7 Natriumweg or P.O. Box 192, Amersfoort. WTD 9/70.

Surgical, medical, dental instruments

38410—TAIWAN — Sphygmomanometer, stethoscopes, medical and diagnostic instruments; laboratory, industrial equipment. Si Fo Trading Co., Ltd. (importer), 12, Po Ai Rd., Taipei. WTD in prep.

Ophthalmic goods

38512—JAPAN—Contact lenses, made of water-absorbing acrylic resin, which do not hamper supply of oxygen to cornea permitting long hours of use. Koshida Commercial & Ind. Co., Ltd. (importer, dist., agent), 2-2-9 Higashi Shimbashi, Minato-ku, Tokyo. WTD in prep.

Photographic equipment

● **38600—KOREA**—Supply of five sets, 16 mm. movie camera with lens, finders and carrying case. Tender No. SLC-0197-PII (Part V); bid deadline Nov. 24. Invited by the Office of Supply, Government of the Republic of Korea, Seoul. Terms and specifications available on loan from the Scientific & Business Equip. Div., BDC-653, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-2939).

38610 — GERMANY — Photo enlargers, color analyzers. Prices c.i.f. Europe ports. G. Janssen & Cie. (importer, dist.), 26-30 Norbertstrasse, 5 Koeln. WTD 8/70.

38615 — NETHERLANDS — Positive photographic films for electronics industry. Representations requested for Netherlands, W. Germany, Sweden. Technische Handelsonderneming "Romex" (importer, dist.), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

38616 — NETHERLANDS — Negative photosensitive lacquers, also in spray cans, for printed circuit manufacturers. Technische Handelsonderneming "Romex" (importer, distributor), 15 Vossenlaan, P.O. Box 19, Maarn. WTD 10/70.

Toys, amusement, sporting goods

39410 — CANADA — Chess supplies — boards, sets, men, clocks, roll-up mats, etc. Shepherd's (importer, dist.), P.O. Box 945, Kingston, Ontario. WTD 10/70.

39430—JAPAN — Twin baby carriages. Lotte Bussan Co., Ltd. Ben Yoshikoshi, Asst. Mgr. (importer, dist., agent), Sumitomo Bldg., 1-807-1 Tsunohazu, Shinjuku-ku, Tokyo. 160. WTD 7/69.

Manufacturing industries

39999—GERMANY — Beauty equipment such as massage apparatus, ozone therapy apparatus, epilation apparatus. Direct purchase & agency. Deutsche Nemectron GmbH (importer, agent), 7500 Karlsruhe, Durlacher Allee 45-47. WTD 2/70.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Meat products

20118—NETHERLANDS—Canned meats. Barends N.V. (importer, dist.), P.O. Box 4646, Rijswijk (Z.H.). WTD in prep.

Dairy products

20231—KOREA—Dry milk products; casein, sodium caseinate. Required approximately 3m/t per mo. Requests delivery schedule, quotations. Nam Yung Commercial Co., Ltd. (importer, dist., agent), I.P.O. Box 1236, Seoul. WTD in prep.

Canning, preserving foods

20323 — NETHERLANDS — Canned dry beans. Barends N. V. (importer, dist., P.O. Box 4646, Rijswijk (Z.H.). WTD in prep.

20331—NETHERLANDS — Canned fruit. Barends N.V. (importer, dist.), P.O. Box 4646, Rijswijk (Z.H). WTD in prep.

20332—NETHERLANDS—Canned vegetables. Barends N. V. (importer dist.), P.O. Box 4646, Rijswijk (Z.H.) WTD in prep.

20361—NETHERLANDS—Frozen foods, soups. Barends N. V. (importer, dist.), P.O. Box 4646, Rijswijk (Z.H.) WTD in prep.

Knitting mills, products

22531—NETHERLANDS—Sport sweaters. Competitive price, quality essential. Agency for Common Market area. Firma A. Raaymakers & Zn. Attn.: J. Hermeler (importer, dist., exporter), 4 Vincentiusstraat, or P.O. Box 61, Tilburg. WTD 10/70.

Fabricated textile products

23920—SWITZERLAND—Nonwoven textile hospital sheets. Dr. K. Baumann (imp., dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

Furniture, fixtures

25990—SWITZERLAND — Attractive carts, trolleys for restaurants, hotels. Beard SA; Attn: Jean Nervi (dist., agent), Ave. Rousseau 19, 1820 Montreaux. WTD in prep.

Converted paper, paperboard products

26414—ENGLAND — Pressure sensitive industrial tapes. Shorgard (Tapes) Ltd. (importer, agent), Cross Rd., Croydon, Surrey, CR9 6EH. WTD 9/70.

Synthetic materials

28210—SWITZERLAND — Plastics raw materials (resins), particularly polystyrol, ABS, AN, AS, polyethylene, polycarbonate, polypropylene. Hesa AG (importer, dist., mfr.), Attn: O. Scherer, 5012-Schoenenwerd. WTD in prep.

Drugs

28340—SOUTH AFRICA—Pharmaceutical preparations. Silvers Agencies (dist., agent), P.O. Box 4798, Cape town, Cape Province. WTD 10/70.

Paints, varnishes, lacquers, enamels

28519—NETHERLANDS—Chemical specialties for paint industry, such as thickeners, anti-skinning agents, etc. Agency on commission basis, or for own account, for Benelux territory. Alb. Th. Suermondt Handelmaatschappij N.V. Attn.: A. P. Brands, Asst. Mgr. (importer, agent, exporter), 97 Grotestraat or P.O. Box 56, Waalwijk. WTD 10/70.

Agricultural chemicals

28790 — NETHERLANDS — Fungicides, other chemical specialties for leather, paint, paper industries. Agency on commission basis, or for own account, for Benelux territory. Alb. Th. Suermondt Handelmaatschappij N.V. Attn.: Mr. A. P. Brands, Asst. Mgr. (importer, agent, exporter), 97 Grotestraat, or P.O. Box 56, Waalwijk WTD 10/70

Chemical products

28993—NETHERLANDS—Chemical specialties for paint, leather, paper industries, such as hide preservatives, anti-skinning agents, thickeners, fungicides, etc. Agency on commission basis, or for own account, for Benelux territory. Alb. Th. Suermondt Handelmaatschappij N.V. Attn.: A. P. Brands, Asst. Mgr. (importer, agent, exporter), 97 Grotestraat, or P.O. Box 56, Waalwijk. WTD 10/70.

Fabricated rubber products

30697 — SOUTH AFRICA — Druggist, medical sundries; rubber. Silvers Agencies (dist., agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

Luggage

31610—LEBANON — Luggage. Agency for Lebanon, certain other Arab countries. Ibrahim Mohamed Khourdaji (PLATINE) (mfr., agent, retailer), Adison Bldg., Bliss St., Beirut. WTD 10/70.

Glass, glassware

32290—SWITZERLAND — High quality hotel, restaurant glassware for soda-drinks, sundaes, similar applications. Beard SA; Attn: Jean Nervi (dist., agent), Ave. Rousseau 19, 1820 Montreux. WTD in prep.

Pottery, related products

32620—SWITZERLAND—Stackable high quality chinaware for hotels, restaurants. Beard SA; Attn: Jean Nervi (dist., agent), Ave. Rousseau 19, 1820 Montreux. WTD in prep.

Abrasive, asbestos, nonmetallic mineral products

32913—THAILAND—Cleaning abrasive, nonwoven coated products for household, in bulk quantity. Requests catalogs, samples, c.i.f. Bangkok prices. Kovitwongsa Ltd. Partnership (importer, retailer, exporter), 662/32 Soi Dheppprasit, Charansnitwongse Rd., Thonburi. WTD in prep.

Cutlery, handtools, general hardware

34231 — GERMANY — Tools; mechanics hand service. Freight as per agreement. Vereinigte Kettenfabrik GmbH (dist.,

mfr., exporter), 4 Bernhardshammer, 519 Stolberg. WTD 10/70.

Fabricated metal products

34941—NETHERLANDS—Metal valves for piping systems. Van Borselen & Co. (importer, exporter), 184 Haagweg, Rijswijk (Z. H.) WTD 12/69.

Farm machinery

35228—SWITZERLAND — Self-propelled farm machinery, cultivators, weeders, barn equipment, farm blowers, elevators, garden tractors, insecticide sprayers, dusters. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kusnacht ZH. WTD 10/70.

Construction, mining, materials handling machinery, equipment

35319—NETHERLANDS—Earth augers, drawn ditchers, tracklaying tractors. Akkerman & Co., Mr. Mol (importer, dist., mfr.), Mercuriusweg 18-20, The Hague. WTD in prep.

35319—SWITZERLAND—Road construction, road maintenance machinery. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

35319 — TAIWAN — Tunneling machine. Rock & Brothers Ent., Ltd. (importer, agent), 14, Alley 34, Lane 291, Nanking E. Rd., Sec. 5, Taipei. WTD 9/70

Metalworking machinery

35441—GERMANY—Tools, special design, metalworking: new to the market. Freight as per agreement. Vereinigte Kettenfabrik GmbH (dist., mfr., exporter), 4 Bernhardshammer, 519 Stolberg. WTD 10/70.

35482—GERMANY—Tools, hand, power driven; parts and attachments: new to the market. Freight as per agreement. Vereinigte Kettenfabrik GmbH (dist., mfr., exporter), 4 Bernhardshammer, 519 Stolberg. WTD 10/70.

Special industry machinery

35520—ENGLAND—Knitting or sewing machines used in production of stockings, pullovers. Detexomat Ltd. (mfr., exporter), Coronation Rd., High Wycombe, Cressex, Bucks. WTD in prep.

35521—SWITZERLAND—Machinery for shirt making, apparel (outerwear), textile industry. Requests offers from manufacturers only. SACOM; Attn.: K. Peyer (dist., agent), P.O. Box 218, 2501 Bienne. WTD 10/69.

35593 — GUATEMALA — Machinery for production of packaging, shipping containers, plastic. Correspondence requested in Spanish. Pierino E. Pinzani (importer, agent, retailer), Via 6, 4-37, Zona 4—Apartado Postal 1032, Guatemala City. WTD 10/70.

General industrial machinery

35611—NETHERLANDS — Pumps for chemical industry. Van Borselen & Co. (importer, exporter), 184 Haagweg, Rijswijk (Z.H.). WTD 12/69.

35612 — NETHERLANDS — Hydraulic fluid power pumps. Van Borselen & Co. (importer, exporter), 184 Haagweg, Rijswijk (Z.H.). WTD 12/69.

35641—NETHERLANDS—Fans, blowers for plants. Van Borselen & Co. (importer, exporter), 184 Haagweg, Rijswijk (Z.H.). WTD 12/69.

35642—NETHERLANDS — Air purification equipment. Akkerman & Co., Mr. Mol (importer, dist., mfr.), Mercuriusweg 18-20, The Hague. WTD in prep.

35690—ENGLAND—Packaging machinery. Shorgard Ltd. (importer, agent), Cross Rd., Croydon, Surrey, CR9 6EH. WTD 9/70.

Office computing machines

35733—SWITZERLAND—Electronic data processing software (packages) for commercial (business) applications. Jost J. Jina EDP Programming (agent, EDP consultant), Baumackerstrasse 42, P.O. Box 301, 8050-Zurich 11. WTD in prep.

Service industry machines

35812—ISRAEL—Coin-operated locks for automatic merchandising machines. Sole agency. Yigal Stern (importer, dist., agent), 51, Yehuda Halevy St., Tel Aviv. WTD in prep.

35853—ENGLAND—Commercial display refrigeration equipment; commercial deepfreeze cabinets. Lo-Kold (Wholesale) Ltd. (wholesaler), Lancaster Rd., Harlescott Grange, Shrewsbury, Shropshire. WTD in prep.

35893—AUSTRALIA—Industrial vacuum cleaners suitable for use in hazardous areas, i.e. flameproof, air purged, explosion proof. Needed for areas containing explosive gases, vapours, ignitable dust atmosphere. G. T. Jones & Co. Pty. Ltd. (importer, dist., retailer), 239 Nicholson St., P.O. Box 220, Carlton South, Victoria 3053. WTD 10/70.

Electric testing, measuring

36112—TAIWAN—Testing equipment for testing electrical motors. Rock & Brothers Ent., Ltd. (importer, agent), 14, Alley 34, Lane 291, Nanking East Rd., Sec. 5 Taipei. WTD 9/70.

36113—GERMANY—Electronic measuring instruments for linear measuring. Ingenieurbuero Reinhold Kurz VDI (importer, agent), 7000 Stuttgart 1, Alexanderstrasse 63. WTD 11/69.

36113—NETHERLANDS—C. R. oscilloscopes, analog oscillographs, analog digital recording instruments, digital test equipment for electrical, electronic circuits, digital multimeters, function and noise generators, instrumentation recorders, signal conditioning equipment, similar electronic measuring equipment for scientific, research applications. Exclusive representations. Eltron N.V. (importer, dist., agent), 1 Blvd., Zeist. WTD 10/70.

Household appliances

36322—ENGLAND—Domestic deepfreeze cabinets. Lo-Kold (Wholesale) Ltd. (wholesaler), Lancaster Rd., Harlescott Grange, Shrewsbury, Shropshire. WTD in prep.

Communication equipment

36611—TAIWAN — Telephone switching equipment. United Traders, Inc. (agent), 60 Nan Yang St., Taipei. WTD 9/70.

36612—TAIWAN — Telephone, telegraph equipment. Rock & Brothers Ent., Ltd. (importer, agent), 14, Alley 34, Lane 291, Nanking E. Rd., Sec. 5, Taipei. WTD 9/70.

36620—NETHERLANDS — Laser equipment. Dordchem N.V. (importer dist.), 9 Oranjestraat, The Hague. WTD 6/69.

36620—NORWAY—Communication, navigational equipment for use in air and on ground, transponders, test instruments, airport equipment for military, civil use. Hovet & Co., O. Hovet, Dir. (importer, dist., agent), Skippergaten 19, Oslo 1. WTD 6/70.

36625—NETHERLANDS — Digital readout meters. Dordchem N.V. (importer, dist.), 9 Oranjestraat, The Hague. WTD 6/69.

36626—GERMANY — Military electronic equipment, such as transmitters, receivers for measurements to U.S. Mil. Std. 461/462/826, FED-Std. 222. Poetschke & Co. K.G. (importer, dist., agent), POB 225, 6000 Bergen-Enkheim. WTD 10/70.

Electronic components, accessories

36795—NETHERLANDS — Transducers, sensors for pressure, temperature, acceleration, displacement, velocity displacement, vibration, force, load cells, etc.; miniature and sub-miniature sensors and transducers for engine research, medical applications, transducer digital indicators, scanners, signal conditioning equipment. Exclusive representations. Eltron N.V. (importer, dist., agent), 1 Blvd., Zeist. 10/70.

Motor vehicles and equipment

37141—ITALY — Parts, accessories for passenger cars, trucks, buses. Correspondence requested in Italian. Carmelo Giglio (agent, maintenance, repair workshop for buses), Viale Raffaello Sanzio 14, 95128 Catania. WTD 10/70.

37141—NEW ZEALAND—Equipment for use in manufacture of heavy transport trailers; 6-ton and 8-ton axle assemblies: 10-stud English fitting; 10-stud American fitting; 5-spoke American fitting; suspensions in multi-leaf single axle, multileaf tandem axle, and taper leaf tandem axle; multileaf triaxles, associated equipment; braking equipment; turntables; landing legs: manual, hydraulic; air suspension axles. Amalgamated Pacific Industries Ltd. Attn.: R. L. Wilks, Man. Dir. (importer, dist., agent), Blows Bldg., Emily Place & Fort St., P.O. Box 3814, Auckland, 1. WTD in prep.

37141 — SWITZERLAND — Automobile exhaust systems, parts, conform to applicable air pollution standards. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

Transportation equipment

37992—SWITZERLAND — Snow grooming vehicles, snowmobiles, off-the-road vehicles, gasoline engine driven. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

Engineering, laboratory, scientific research instruments

38112—NETHERLANDS — X-Y recorders, oscilloscopes, oscillographs, analog, digital recorders, similar laboratory measuring, recording instruments. Exclusive representations. Eltron N.V. (importer, dist., agent), 1 Blvd., Zeist. WTD 10/70.

Instruments for measuring and controlling physical characteristics

38216—GERMANY—Mechanical measuring, controlling instruments for linear

measuring. Ingenieurbuero Reinhold Kurz VDI (importer, agent), 7000 Stuttgart 1, Alexanderstrasse 63. WTD 11/69.

38216—NETHERLANDS — X-Y recorders, other recording equipment for control, research. Exclusive representations. Eltron N.V. (importer, dist., agent), 1 Blvd., Zeist. WTD 10/70.

38216—NETHERLANDS—High pressure gages. Firma Gommer (importer, dist.), 66 Herenstraat, Voorburg. WTD 10/69.

38220—NETHERLANDS — Gages for measuring temperature. Firma Gommer (importer, dist.), 66 Herenstraat, Voorburg. WTD 10/69.

Optical instruments, lenses

38311—GERMANY — Optical measuring instruments for linear measuring. Ingenieurbuero Reinhold Kurz VDI (importer, agent), 7000 Stuttgart 1, Alexanderstrasse 63. WTD 11/69.

38311—ISRAEL—Mass spectrometers for research purposes. Agentex Ltd. (importer, dist., agent), 3 Bograshov St., Tel Aviv. WTD 10/69.

38311—NETHERLANDS—Infrared spectrometers. Dordchem N.V. (importer, dist.), 9 Oranjestraat, The Hague. WTD 6/69.

Surgical, medical, dental instruments

38410—AUSTRIA — Otoscopes, similar diagnostic instruments combined with cold light sources, i.e., light transmitted through optical glass fibers; therapeutical devices, appliances such as diathermy machines, muscle stimulators, aspirators, ultrasonic nebulizers, atomizers, steam vaporizers, related air control equipment for clinical, home use; portable and clinical audiometers; hearing aid supplies (excluding hearing aids). Correspondence requested in German. Hansaton, Rudolf G.E. Fischer K.G. (distributor, retailer, exporter), Wolf-Dietrich Str. 19, A-5020 Salzburg. WTD in prep.

Jewelry, silverware, plated ware

39140 — SWITZERLAND — Laminated serving trays, insulated ice buckets, vacuum jugs for use in medium, high class restaurants, hotels. Beard SA; Attn: Jean Nervi (dist., agent), Ave. Rousseau 19, 1820 Montreux. WTD in prep.

Toys, amusement, sporting goods

39410—SWITZERLAND—New game sets for adults, novelties. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

39492—SWITZERLAND—Skis, ski bobs, other winter sports equipment. Dr. K. Walter Baumann (importer, dist., agent), Himmelistrasse 15, 8700 Kuesnacht ZH. WTD 10/70.

39492—THAILAND—Golf clubs, balls, equipment. Requests catalogs, c.i.f. Bangkok prices. Arland Ltd. Partnership (importer, wholesaler), 516 Patumwan Circle, Bangkok. WTD in prep.

39493—THAILAND—Health, exercising equipment for women. Requests catalogs, c.i.f. Bangkok prices. Arland Ltd. Partnership (importer, wholesaler), 516 Patumwan Circle, Bangkok. WTD in prep.

Manufacturing industries

39999—ISRAEL—Soap dispenser (paste or liquid) for cleaning grease off hands. Exclusive agency. Leopold Hochmann-Import/Export (importer, dist., agent), 4 Lev St., Tel Aviv. WTD in prep.

Other Foreign Official Tenders

ALGERIA—A tender for the supply of power supplies, control and distribution equipment has been issued. Bid deadline Jan. 2. Bids should offer power supplies, control board and distribution system for telephone and telegraph equipment. Copies of tender announcements and specifications available in French from the Directeur Des Telecommunications, Sous-Direction Des Transmission, Bureau 715, Ministere Des Postes Et Telecommunications, 4 Boulevard Salah, Bouakouir, Algiers, or on short-term loan to firms located in the U.S. from the Communications-Electronics Div., BDC-643, Room 4209, Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4823).

ARGENTINA—Tender No. 89/70 for the supply and installation of four Francis turbines of vertical axis; four synchronous generators; cooling water system; and drainage system has been published. Copies specifications available for U.S. $125; bid deadline Dec. 2. Administracion Geneal de Agua y Energia Electrica, Corrientes 531—1er. Piso, Buenos Aires.

ARGENTINA — Buenos Aires invites bids for supply, installation and start-up of two garbage incinerating plants; daily capacity 1,000 tons each. Project estimate is $15 million. Bids due Feb. 15. Copies of conditions and technical specifications available for 500 Argentine pesos from the Secretaria de Servicios Publicos, Municipalidad de la Ciudad de Buenos Aires, Av. de Mayo 525, 4 Piso, Buenos Aires. One set of tender conditions in Spanish may be seen in Room 5629, BDC, Dept. of Commerce, Washington, D.C.

BOLIVIA — The Empresa Nacional de Electricidad S.A. requests bids for one 10 mw thermoelectric plant, including equipment, transportation and installation of civil engineering and construction, prefabricated building, three dual-fuel diesel or gas motors, generator units of 3,300 kw, auxiliary equipment, 20-ton electric crane, refrigerating towers and tanks, water and fuel storage tanks, housing pumps, office building, etc. Tender No. E-1070; bid deadline Dec. 15. Specifications available for U.S. $100 from Empresa Nacional de Electricidad S.A., P.O. Box 565, Cochabamba. IDB financing.

BRAZIL—ARATU (Bahia) Industrial Center seeks prequalifications to bid on the first stage of port facilities. Only firms approved in this prequalification will be invited to tender. Applications in Portuguese due Nov. 25 by CENTRO INDUSTRIAL DE ARATU, Comissao Especial para Execucao do Projeto Portuario, Edificio Presidente Arthur da Costa e Silva, Br.-324—km 17, Salvador, Bahia. Copies of official prequalification specifications in Portuguese available from Dept. of Commerce, BDC-645, Washington, D.C. 20230 (202-967-5289) and the Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868). Financed by Inter-American Development Bank.

UGANDA—Secretary of East African Posts & Telegraphs issued Tender No. 2/70 for the supply of teleprinters and associated apparatus. Bid deadline Dec. 2. Copies of tender announcement and specifications available from the Crown Agents for Overseas Governments and Administrations, 4 Millbank, London S.W.1 or the Secretary of the East African Post & Telegraphs Tender Board EAP & T Headquarters, P.O. Box 7169 Kampala.

IRAN—The Sherkat Sahami Telephone has issued Tender No. 49/17 for supply of pressurization system for telephone cable network. Bid deadline Dec. 22. Copies of tender announcement and specifications available on short-term loan to firms located in the U.S. from the Comm.-Electronics Div., BDC-643, Room 4209, U.S. Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4823).

LIBERIA—The Liberian Public Utilities Authority seeks bids for an IBRD-financed $10 million hydroelectric power project at Mt. Coffee and a separate tender for the purchase and installation of two 15 mw gas turbines at the Bushrod Island Power Station, Monrovia. Prequalification deadline for prospective bidders for the Mt. Coffee project is Nov. 16. To qualify, firms must submit a brief description of their company to Taylor Major, Secretary for Public Utilities, Public Utilities Authority, P.O. Box 165, Monrovia. Total costs are estimated at $7 million. The project, divided into 3 contracts, subject to a separate bid, entails completion of a 250-foot cofferdam. No. 2 calls for the supply and installation of one vertical shaft Francis turbine including all concrete-embedded parts for 2 units. No. 3 involves the supply and installation of a vertical shaft umbrella-type AC generator with an option to supply a second unit in 1975. Additional information concerning the tender documents for the Bushrod Island turbines, contact the Dept. of Commerce, BDC-651, Washington, D.C. 20230 (202-967-4189).

MALAYSIA—The Federal Land Development Authority, has issued a call for bids for the design, supply, construction, erection, installation, completion, testing, maintenance, and guarantee of electrical, mechanical, and civil engineering works for the Federal Land Development Authority, Kulai Palm Oil Mill in the District of Johore Bahru, Johore; Tender No. BK 78/70. Bid deadline Dec. 30. Tender documents and drawings for the mill may be obtained from the offices of the Federal Land Development Authority for M$1,000 (U.S.$1 equals M$3). One set of the project outline, specifications and drawings may be seen in the Dept. of Commerce, BDC, Room 5629, Washington, D.C. 20230.

PAKISTAN — West Pakistan Railway Board issued Tender No. PR-I/69/PMP/16 Schedule II for the supply of telephone equipment. Bid deadline Dec. 7. Bids should offer two 10 line telephone exchanges and 10 five line telephone exchanges and associated parts. Copies of tender announcement and specifications are available from the Secretary, Railway Board Lahore, District Controller of Purchase. P.W. Railway Karachi for $6.25 plus $2 airmail, or on short-term loan to firms located in the U.S. from the Communications-Electronics Div., BDC-643, U.S. Dept. of Commerce, Washington, D.C. 20230 ★ (202-967-4823).

SAUDI ARABIA—Plans to build approximately 4,000 km. of new highway in the next five years have been announced. U.S. consulting firms desiring to be placed on the prequalified list for highway design and supervision of construction are invited to submit two copies of their detailed qualifications to: His Excellency Hussein Mansouri, Deputy Minister of Communications, Riyadh, Saudi Arabia. Personal visits to the Kingdom by company representatives are welcome.

THAILAND — General Manager, Aeronautical Radio of Thailand Ltd. issued a tender for the supply of air traffic control radar equipment. Bid deadline Feb. 2. Bids should offer five systems comprising approach and en-route primary radar, secondary surveillance radar, display consoles, video map generators and microwave video link. Copies of tender announcement and specifications are available only from the General Manager, Aeronautical Radio of Thailand Ltd., 102 SOI Ngarm Dupli, Tung Mahamek or P.O. Box 535 Bangkok, for $50.

THAILAND—The Project Dir., Office of Loans & Aids Controls, Dept. of Highway, Sri Ayuthaya Road, Bangkok, issued 55 separate tenders with bid deadlines from Nov. 16 to Dec. 4, for supply of workshop equipment including: trucks, cranes, buses, machine tools, testing equipment, office equipment, hand tools, maintenance equipment, hydraulic tools and power units. IBRD financing. Tenders must be acompanied by a guarantee in the form of the Highway's Tender Guarantee Form or a guaranteed check. Tenders must be delivered to the above address before 10:30 a.m. Copies of specifications may be obtained from U.S. Dept. of Commerce, ILTO Staff, BDC-541, Washington, D.C. 20230 ★ (202-967-4674).

THAILAND — The Thailand Highways Dept. plans to issue tenders for construction of highway projects financed by the IBRD. The contract values range from $3-$7.5 million; construction periods vary from 18 months to 3 years. Bidding will be restricted to firms which prequalify. Contractors who wish to be prequalified should complete a form obtained at and returned before Dec. 15 to the Office of Loans & Aids Control, Dept. of Highways, Ministry of National Development, Sri Ayuthaya Road, Bangkok.

TUNISIA—SONEDE, the Societe Nationale d'Exploitation et de Distribution des Eaux, 23 rue du Docteur Braquehaye, Tunis, issued a call for bids on the undertaking of works for the supply of drinkable water to the Hammamet-Nabeul area in Tunisia. SONEDE received a World Bank loan and another loan from Sweden. The project consists of A) 1st Lot: transportation and installation of water pipes, in reinforced concrete, 500 mm, 916 linear meters; in reinforced concrete, 400 mm, 420 linear meters; in asbestos cement, between 150 and 300 mm, 22,645 linear meters; and B) 2nd Lot: construction of 3 tanks of 5,000 cubic meters each. Specifications cost U.S. $95; bids due Dec. 31. They may be purchased in any of these ways: cash at SONEDE's pay desk; transfer to the account of SONEDE, No. 158,640, opened with Societe Tunisienne de Banque; check drawn on a bank in Tunis; transfer to postal checking account No. 330.00 in Tunis, or by C.O.D. for countries accepting this type of payment.

New Trade Lists

The Bureau of International Commerce has published the following Trade List. Copies may be obtained by firms domiciled in the United States from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230, and from Field Offices. The price is $1 per list for each country.

American Firms, Subsidiaries and Affiliates—Mexico, October 1970

These automated lists have been published to provide complete coverage for the Netherlands. Automated trade lists may be ordered by their titles or by the five digit identification number. All are dated August 1970.

Netherlands—Automated Lists

No. *Title*

01000—Farm, forestry, fishery products; mining companies
20000—Food, kindred products; tobacco, tobacco products
22000—Textile industry
23000—Apparel, accessories, miscellaneous fabricated textile products; personal leather products
24000—Lumber, wood products
25000—Furniture, fixtures
26000—Pulp, paper, paperboard mill products; converted paper, paperboard products; building paper, boards
27000—Printing, publishing industries
28100—Industrial chemicals
28200—Plastics materials, synthetics; plastic products
28300—Drugs
28400—Soap, cleaners, toilet goods
28500—Paints, allied products; gum, wood chemicals
28700—Agricultural chemicals; miscellaneous chemical products
29000—Petroleum, petroleum products
30000—Rubber, rubber products; leather, leather products (except footwear, personal leather goods, tires, inner tubes)
32000—Stone, clay, glass products
33000—Primary metals, metal products, ferrous, nonferrous
34100—Metal cans; cutlery, hand tools, general hardware
34300—Heating apparatus (except electric), plumbing fixtures
34400—Fabricated structural metal products; industrial fasteners; metal stampings; miscellaneous fabricated metal products
35100—Engines, turbines
35200—Farm machinery, equipment
35300—Construction, mining, materials handling machinery, equipment
35400—Machine tools; special dies, tools, jigs, fixtures, industrial molds; machine tool accessories; other metalworking machinery
35500—Food products machinery; miscellaneous special industrial machinery, nonelectrical
35520—Textile industry machinery; woodworking, paper, printing industries machinery
35600—General industrial machinery, equipment, nonelectrical
35700—Office, computing, accounting machines
35800—Service industry machinery, miscellaneous nonelectrical machinery
36100—Electrical test, distributing equipment; electrical industrial apparatus (includes motors, generators, industrial controls); welding equipment, (carbon, graphite products, capacitors, rectifying apparatus, etc.)
36300—Household appliances; electronic equipment for home entertainment; phonograph records, tapes
36600—Commercial, industrial, military communication equipment
36700—Electronic components, accessories
36400—Electric lighting, wiring equipment; miscellaneous electrical equipment, supplies
37100—Automotive vehicles, parts, accessories (includes auto repair shops, tires, inner tubes)
37200—Transportation equipment, parts (except automotive)
38100—Professional, scientific instruments, controlling devices
38600—Photographic equipment, supplies; watches, clocks; jewelry, silverware, plated ware
39300—Musical instruments; toys, amusements, sporting, athletic goods
39500—Pens, pencils, other office, artists' materials; costume jewelry; novelties, notions; miscellaneous manufactured products

The following automated lists are available for either Denmark or Finland. Lists may be ordered for each country by the titles given below or by the five digit identification (ID) number. All are dated August, 1970.

Denmark, Finland—Automated Lists

No. *Title*

01000—Farm, forestry, fishery products; mining companies
20000—Food, kindred products; tobacco, tobacco products
22000—Textile industry
23000—Apparel, accessories; miscellaneous fabricated textile products; personal leather products
24000—Lumber, wood products; furniture, fixtures
26000—Pulp, paper, paperboard mill products; converted paper, paperboard products; building paper, boards; printing, publishing industries
28000—Chemicals, plastics, related products
29000—Petroleum, petroleum products
30000—Rubber, rubber products; leather, leather products (except footwear, personal leather goods, tires, inner tubes)
32000—Stone, clay, glass products
33000—Primary metals, metal products, ferrous, nonferrous
34000—Fabricated metal products
35000—Machinery, nonelectrical
36000—Electrical machinery, equipment, supplies
37000—Transportation equipment, parts, accessories (includes auto repair shops)

38000—Professional, scientific instruments, controlling devices; photographic equipment, supplies; watches, clocks; jewelry, silverware, plated ware
39000—Musical instruments; toys, amusements, sporting, athletic goods; office, artists' materials; costume jewelry; novelties, notions; miscellaneous manufactured products

The following automated lists provide complete coverage for Greece. All are dated August 1970.

Greece—Automated Lists

No. *Title*

01000—Farm, forestry, fishery products; mining companies
20000—Food, kindred products; tobacco, tobacco products
22000—Textile industry
23000—Apparel, accessories; miscellaneous fabricated textile products; personal leather products
24000—Lumber, wood products
26000—Pulp, paper, paperboard mill products; converted paper, paperboard products; building paper, boards; printing, publishing industries
28100—Industrial chemicals
28200—Plastics materials, synthetics; plastic products
28300—Drugs; soap, cleaners, toilet goods
28500—Paints, allied products; gum, wood chemicals
28700—Agricultural chemicals; miscellaneous chemical products
29000—Petroleum, petrolum products
30000—Rubber, rubber products; leather, leather products (except footwear, personal leather goods, tires, inner tubes)
32000—Stone, clay, glass products
33000—Primary metals, metal products, ferrous, nonferrous
34000—Fabricated metal products
35100—Engines, turbines
35200—Farm machinery, equipment; construction, mining, materials handling machinery, equipment
35400—Machine tools; special dies, tools, jigs, fixtures, industrial molds; machine tool accessories; other metalworking machinery
35500—Foor products machinery; miscellaneous special industrial machinery, nonelectrical
35520—Textile industry machinery; woodworking, paper, printing industries machinery
35600—General industrial machinery, equipment, nonelectrical
35700—Office, computing, accounting machines; service industry machinery, miscellaneous nonelectrical machinery
36000—Electrical machinery, equipment, supplies
37000—Transportation equipment, parts, accessories (including auto repair shops, tires, inner tubes)
38000—Professional, scientific instruments, controlling devices; photographic equipment, supplies; watches, clocks; jewelry, silverware, plated ware
39000—Musical instruments; amusements, sporting, athletic goods; office, artists' materials; costume jewelry; novelties, notions; miscellaneous manufactured products

Future Construction

ARGENTINA—A five-year road building and improvement plan has been presented to the National Development Council (CONADE). Plans envision remodeling the existing road system, changing it to a regional network system; building access roads, circumferential highways, bridges, and other complementary works. Cost of the plan is estimated at 3.3-4.6 billion pesos (U.S.$839-$1,172 million).

CANADA—Listed are construction starts being planned for cities in British Columbia. 1) Studies are under way for the concrete block construction of an **office building and warehouse** in Richmond by Adams Pharmacal Products Ltd., 8871 Selkirk St., Vancouver; construction expected to begin in early 1971. 2) A **Roman Catholic church** in Vancouver, tenders expected to be called soon. The architect is Asbjorn R. Gathe, 198 W. Hastings St., Vancouver. 3) An eight-story, 84-room hotel on 119 E. Columbia St., Vancouver. The engineering firm for this $1 million project is C. B. Consultants Ltd., 1678 W. Broadway, Vancouver.

CANADA—Over $750 million in new building construction projects are planned for downtown Vancouver area including: 1) A **$78-million community center—senior citizens complex,** planned by Thompson, Berwick, Pratt & Partners, 1553 Robson St. 2) United Equities, 525 Seymour St. will build a 400-room, $9 million **hotel** complex which includes covered parking, shops, boutiques, beer parlor, restaurant, recreational facilities, health club and offices; consulting engineers are Lauringson & Tamm Ltd., 1644 Bridgeman St. 3) A 40-story **hotel** planned by Wosk's Ltd., 62 W. Hastings St.; Architects are Lort and Lort, 1909 W. Broadway. 4) 18-story, $5 million **office building** planned by the First Canadian Land Corp., Ltd., 549 Howe St. Structural, mechanical and electrical engineers are McKenzie, Snowball, Skalbania and Associates, 1650 Alberni St. 5) $22 million **hotel-convention complex,** Architect Peter Cole, 540 Burrard St., designed the 25-story complex which provides three-story parking for 700 cars and full convention facilities. Owners are First Canadian Land Corp. 6) **Government building** will be topped by a revolving restaurant. Preliminary design work by McCarter, Nairne and Partners, 355 Burrard St., and Thompson, Berwick, Pratt & Partners. 7) Construction is to begin in December 1971 on an $8.5 million **Canadian Broadcasting Co. building complex**; architects Thompson, Berwick, Pratt and Partners. 8) The Marathon Realty Co., Ltd., a Canadian Pacific Railway subsidiary, is completing development plans for the first stage of a 122-acre, **$250 million development project**; it involves 9,000 high-rise and low-rise garden apartment units to house 14,000 people. Architect is Zoltan S. Kiss, 955 Richards St.; planning consultants are Transwest Planconsult Ltd., 207 W. Hastings, and Warnett Kennedy, 355 Burrard St. 9) A Hong Kong group plans to build a 510-room, 41-story **hotel** featuring a revolving restaurant and roof garden. The architect is R. William Wilding, 2574 Vine St. 10) A 24-story, 192-room **hotel** for B. C. Turf Ltd. is being designed by the architect Zoltan S. Kiss. 11) Plans have been approved in principle for the Four Seasons Complex, a **high-rise apartment building.** The project is designed by the Toronto firm Webb, Zerafa & Menkes. 12) Architect Frank Musson & Associates, 505 Burrard St., is planning further development of Bentall Center to provide two more 28-30 story **office towers.** The owner-developer, Dominion Construction Co., Ltd., 1 Bentall Center, will commence construction in mid-1971.

CANADA—Preliminary planning for the development of a **new general cargo pier** in the Port of Vancouver is under way. The initial stage of development will encompass around 30 acres. Ultimate development will cover about 90 acres in North Vancouver's District Lot 204, east of Lynn Creek. It is hoped that local involvement can be obtained by means of a financial consortium composed of Western Canadian businessmen and industrialists.

EL SALVADOR—The manager of El Salvador's largest slaughterhouse, the Rastro Municipal, wishes literature and quotations for cattle **slaughtering equipment and accessories** for the plant's present capacity of 120-150 head per day, and literature and quotations for meat rendering and preparing equipment for ham, bacon, and other smoked meat. Write, preferably in Spanish, to: Juan Ramon Ostorga, Jefe, Rastro Municipal de San Salvador, Carretera Panamericana, (Blvd. del Ejercito Nacional, Km. 7½), San Salvador.

EL SALVADOR—A slaughterhouse with a 150 head of cattle a day capacity is planned near Apopa north of San Salvador. Interest is in literature and quotations for slaughterhouse equipment and accessories, boneless meat cutting and slicing machines, and bone cutting machines, also in pig slaughtering equipment for a smaller, still undefined capacity. Contact Roberto Hill, Director Ejecutivo, Financiera de Desarrollo e Inversiones, S.A., 4a. Avenida Norte 210, San Salvador.

GERMANY—A long-term DM 200 million program to deepen the navigational channel of the Weser River at Bremen was announced. No schedule was developed for this program because its realization depends on appropriation of funds over a 10-12 year period. Preparations will take at least one year; work will start sometime in 1972. The program envisages extension of the existing radar ship guiding system from Bremerhaven towards Bremen, including construction of two new radar stations along the Weser River and an expansion of the existing central station at Bremerhaven. The radar scanners will have a decentered range at about 10 nautical miles. Write Regierungs-Baudirektor Gerhard Koehler, Wasser- und Schiffahrtsverwaltung, Fransiueck 5, 28 Bremen. Firms interested in bidding on the radar system should write: Seezeichenversuchsfeld, Attn: Mr. Haase, Weinbergstrasse 11, 54 Koblenz.

GERMANY—Munich is planning construction of a second **international airport,** referred to as Munich II. Oversee-

ing the planning is Flughafen Muenchen GmbH, Munich airport authority. Construction of Munich II should begin in 1974 and operation in 1978; authorities are not yet committed to specific building materials or designs. Contact: Flughafen Muenchen GmbH., Planungsabteilung, 8 Muenchen 87, Flughafen.

IVORY COAST—The Minister of Agriculture intends to open an **irrigated sugar plantation and mill complex** by the end of 1972. The 4,500 hectare project will be located near Ferkessedougou. Annual production goal is 45,000 metric tons. The sugar project is to be undertaken by a state owned company which will meet local expenses. The complex will include and suppliers will be asked to provide the following: 1) equipment for a sugar mill and refinery with a daily capacity of 3,500 metric tons. 2) machinery capable of producing 25,000 metric tons of sugar cubes per year. 3) sprinkler type irrigation equipment covering the entire 4,500 hectare plantation. 4) tilling and transport equipment: tractors, tractor trailers, etc. 5) equipment for dam construction, land clearing and road building.

JAMAICA—Kingston will seek U.S. $480,000 from the Jamaican government to finance **expansion of sanitation services for Kingston.** Plans include: 1) import of 12 mechanical sweepers; 2) installation of a system of household and street containerization; 3) erection of three transfer stations; 4) creation of an adequate supply of spare parts and maintenance equipment for Kingston's overtaxed sanitation department. Equipment will probably be purchased through Reginald Aitken, Ltd., Engineers & Manufacturers' Representatives, 8 E. Parade, P.O. Box 339, Kingston.

KOREA—Korea plans to seek approximately $36.7 million in loans from IBRD and IDA to finance the following **agricultural development projects:** 1) Agriculture Development Corp. seeks a $23.4 million loan to finance the development of 90,000 acres of land in the Yongsan River basin. 2) A $3.6 million IBRD loan to establish areas for seed improvement. 3) a $9.8 million IDA loan for the state-run Agriculture and Fisheries Development Corp. so it may import 5,100 milk cows and milk processing facilities. Interested parties should contact the respective Korean corporations.

SWITZERLAND—Zurich endorsed an **expansion plan for Zurich International Airport** (Kloten). The plan includes lengthening the runways, expansion of the tarmac area, tripling the size of passenger and freight handling areas, and modernization of ground transportation facilities within or serving the airport.

VENEZUELA—Venezuela has authorized the establishment of **tax-free shops in airports and ports** for sales to departing and transiting passengers. The shops will sell both domestic and imported products. Imported products will not be subject to duty. No decision has yet been taken concerning the nature of products carried in these shops. An official indicated that lines would probably be limited to liquor, tobacco and jewelry. Licenses to operate the shops have not yet been granted.

VENEZUELA—A feasibility study for **modernization of the El Callao Gold Mine** has been completed by the Compania Nacional de Mineria (MINERVEN), and the report is now under review by the Ministry of Mines & Hydrocarbons. MINERVEN recommended that the Government finance the $6.6 million project through British banks and that necessary capital equipment be acquired through international bids.

YUGOSLAVIA—Growing foreign tourism and increasing travel by Yugoslavs to other countries has stimulated interest in **new airports and modernizing or expanding existing facilities.** About $5 million will be spent for imported air traffic control equipment during 1970-75. VOR, ILS, and DME equipment, ground air communication gear, long range radar and flight simulators will be the items most in demand. The Belgrade Airport will soon purchase a center line instrument landing system costing $300,000-$500,000. The Airport's management plans to spend $10 million for expansion during the 1971-74 period; half will go for imported ground equipment and half for local construction costs. Jet starters, tractors for large and jumbo jets, baggage and cargo loading equipment, ground communications equipment, machinery to mechanize cargo warehousing are sought. Write: Milan Djordjevic, Aerodrom "Beograd," Beograd 31. Navigation or ground equipment suppliers interested in publicity or advertising in Yugoslavia should contact *KRILA*, a weekly magazine of aviation and aerospace news at Uzun Mirkova 4/2, Belgrade.

Visiting Buyers And Officials

AFGHANISTAN — Amanullah Siffeti, Maqsudi Textile Mills, Qila Fatahullah Sharenau, Kabul, **interested in finalizing order already placed for a spinning plant.** End of Sept. for six months via New York. c/o Saco-Lowell, Greenville, S.C. (Drawer 2327), 29502. Itinerary: New York, Philadelphia, Charleston. WTD 3/68.

ARGENTINA — Enrique A. Thomson, Compania Argentina Mercurio, S.A., Ave Pte. Roque Seenz Pena 720, 5o Piso, Oficina "A", Buenos Aires, **interested in direct importation and eventually to negotiate representation for chemical raw materials such as alkalis and fertilizers.** Nov. 15 for 20 days via Miami. c/o Uniroyal International in each of the cities mentioned below and Export-Import Bank in Washington. Itinerary: Miami, New York, Providence, R.I. WTD in prep.

CHILE—Pedro Doren Wilson. **Interested in purchasing machinery to manufacture prefabricated houses bathrooms, walls and partitions made of injected plastics.** Oct. 30 for 45-60 days via San Francisco. c/o Lionel Doren, 1255 8th St., Apt. 4, Monterey, Calif. 93940. Itinerary: San Francisco and Monterey, Calif. WTD under prep.

FRANCE.—A. Gosseau, Castorama, Super-Marche du Bricolage, 59 Englos, **interested in management of large do-it-yourself supermarket.** Nov. 10 for 8 days via Boston. c/o Statler Hilton, 7th Ave. & W. 33rd St., New York, 10001. Itinerary: Boston, Nov. 11-12, New York, Nov. 13-14, Washington, D.C., Nov. 16-17. WTD in prep.

HONDURAS—Rene Afredo Pinto, Honduras Electrica S.A. de C.V. Hondelec, **interested in representing firms which manufacture electrical equipment and accessories,** such as electrical wiring, cables, etc. Nov. 30-31 for one month via New York. c/o. Hotel Belmont Plaza, Lexington Ave. & 49th St., New York. Itinerary: Schenectady and Syracuse, N.Y., Rome and Atlanta, Ga. WTD 8/69.

ISRAEL — Lillianne Abergel, Owner, Hairdressing Salon Lillianne, 1 Keren Kayemet Blvd. Bat-Yam, **interested in the purchase of electrical dryers, hairgoods (wigs, hair-pieces) and cosmetics.** Oct. 22 for about 2 months via New York. c/o Mrs. Paula Harary, 2019 66th St., Brooklyn, N.Y. Itinerary: New York, and other cities suggested. WTD in prep.

ISRAEL—Norbert Rubinstein, Manager, AMPA Ltd., 16 Petah Tiqva Rd., P.O. Box 636, Tel Aviv, **interested in a licensing arrangement for the production in Israel of navigation and communication equipment.** Nov. 7, via Boston for three weeks. c/o Javitz & Trubin, c/o Mr. Warshaw, 375 Park Ave., New York, N.Y., or 125 University Rd., Brookline, Mass. 02147. Itinerary: Washington, D.C., New York, N.J., Philadelphia, Conn., Chicago and Boston. WTD 10/70.

NEW ZEALAND—C. H. Turner, Chief Telecommunications Engineer, New Zealand Forest Service, Private Bag, Wellington, **interested in electronic and communications devices for forest fire protection and forest management.** Nov. 1 for six weeks via Washington, D.C., c/o Senior Trade Commissioner for New Zealand, Suite 308, Associations Bldg., 1145 19th St. N.W., Washington, D.C. 20036, and New Zealand Trade Commissioner, 435 Kearny St., San Francisco, Calif. Itinerary: Nov. 1-11, Washington, D.C.; Lynchburg, Va.; New York; Toronto, Nov. 12-15; Chicago, Nov. 16-24; Missoula, Montana; Lewiston, Idaho; Nov. 25-Dec. 5, Seattle, Tacoma, Vancouver and Victoria; Dec. 6-12, San Francisco.

PAKISTAN—Mian Abdul Khaliq, Longways Trading Corp., 27-B Shahalam Market, Lahore, **interested in exporting hand knotted woolen carpets.** Nov. 15 for six months via New York. c/o Noonoo Rug Co., Inc., 245 Fifth Ave., New York, N.Y. 10016. Itinerary: New York, Los Angeles, San Francisco. WTD in prep.

PAKISTAN—Mohamed Sheriff Allarakhia, Mng. Dir., Sadwell Ltd., Mandviwala Yusuf Bldg., 2nd Fl., South Napier Rd., Karachi, **interested in photo-lathe engravers by electronic process equipment, tools, workshop equipment.** Early Nov. for a month c/o M/s Dodwell & Co. Ltd., 120 Wall St., New York, N.Y. 10005. Itinerary: New York, N. Miami, Chicago, other cities. WTD 9/70.

VENEZUELA — Gonzalo J. Morales, Servicios Industriales Suramericanos, S.A., Apartado 70011, Los Ruices, **interested in representing manufacturers of refrigeration and air conditioning equipment.** Second week in Nov. for two weeks via Miami. c/o. Dept. of Commerce Field Office, Miami, Florida, Room 821, City National Bank Bldg., 25 W. Flagler St. Itinerary: Miami and New York. WTD in prep.

International Business Reports

The World's Principal Export Credit Insurance Systems and Foreign Investment Guarantee Guide. International Export Credits Institute. 209 pp. $55.

An analysis of the export credit insurance and investment guarantee systems operated by 55 individual insurers in the United States and 37 other countries. This study details the structure of each credit agency, its financial resources and exposure limits, scope of coverage, premium charges and how they are based, types of policy available, financial operating results and other factors.

Write: International Export Credits Institute, 200 Park Ave. S., New York, N.Y. 10003.

Regional Trade Directory: Iran-Pakistan-Turkey, 1970. Madatali Karamali, Karachi. 700 pp. $15.

This is the second Annual Edition of this directory. It covers the economies of Iran, Pakistan and Turkey which comprise the RCD (Regional Cooperation for Development). For all three countries, a description of the organization is given with detailed information on finance, commercial policy, trade and commerce, manufacturers, etc. Names and addresses of firms in each country are listed alphabetically by product. Some international area data are also included.

Write: International Publications Service, 303 Park Ave. South, New York, N.Y. 10010

Surveys of African Economies, Vol. 3. International Monetary Fund, Washington, D.C. 786 pp. $5 per Volume.

This third volume of the series, covering Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Togo, and Upper Volta, follows upon the 1969 release of Vol. 2, East Africa, and Vol. 1 (1968), Central Africa. This is an essential reference for businessmen or public officials who are concerned with western Africa. Initial chapters treat regional cooperation, development planning, banking, balance of payments, and exchange systems common to these seven individual countries of the West African Monetary Union.

Write: The Secretary, International Monetary Fund, 19th and 'H' Sts., NW., Washington, D.C., 20431.

World Directory of Industry and Trade Associations. International Trade Center, UNCTAD/GATT, Geneva. 370 pp. $5.

Designed primarily as a tool for market analysts, this is the second edition of a directory that first appeared in 1966. It lists nearly 6,000 associations in 60 countries, both by product category and by country.

Write: UNIPUB, Inc., P.O. Box 433, New York, N.Y. 10016.

Who Owns Whom, 1969. (U.K. ed.) O. W. Roskill & Co. (Reports) Ltd., London. 1,891 pp. $33.75.

This United Kingdom edition is presented in four major sections. U.K. companies are listed alphabetically indicating subsidiaries; U.K. subsidiaries are then listed indicating parent company. Data on U.S. parent companies are provided alphabetically showing U.K. subsidiaries and associates. The fourth section is an alphabetic compilation of unit trusts indicating managers and trustees. The appendices contain the names of selected industrial holding companies; industrial classification of other selected companies which have diversified outside their main classification; and an explanation of the code used to specify the industries of companies.

Write: International Publications Service, 303 Park Ave. South, New York, N.Y. 10010

Calendar For World Traders

Nov. 19—Chicago—In-office meeting for exporters, Commerce Field Office.

Nov. 19—New York — Overseas Automotive Club luncheon and meeting, aboard Prudential-Grace Line ship Santa Paula, foot of West Houston St., noon.

Nov. 19—St. Louis—World Trade Club monthly dinner meeting, "Port of New York Night," Bel Air East, Mayan Room, 6 p.m.

Nov. 24—Cranston, R.I. — Dinner meeting of World Trade Club of Greater Providence Chamber of Commerce, Colonial Hilton Inn, 5:30 p.m., following port tour.

Nov. 24 & Dec. 1—Detroit—Export workshops, 533 Federal Bldg., 10 a.m.

Nov. 24—St. Louis—"Show You" export workshop on documentation, Commerce Field Office, Federal Bldg., 2 p.m. Sponsor: World Trade Club.

Nov. 24—Westbury, N.Y. — World Trade Club of Long Island, bimonthly luncheon meeting at Carl Hoppl's Westbury Manor.

Nov. 25 & Dec. 2—Cincinnati—Export trade workshops, Univ. of Cincinnati. Sponsors: World Trade Club, REEC, Field Office.

Dec. 1—New York—FCIB luncheon and roundtable conference on international finance, credit, collection and exchange problems. Summit Hotel, noon.

Dec. 1—St. Louis—"Show You" export workshop on documentation, Commerce Field Office, Federal Bldg., 2 p.m. Sponsor: World Trade Club.

Dec. 3—West Hempstead, N.Y.—Exporters Roundtable Workshop, National Bank of North America.

New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

OFFICE OF THE SECRETARY

Export Control. 92nd quarterly report, 2nd quarter 1970, by the Secretary of Commerce to the President and the Congress. Oct. 8. 98pp. 45¢.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF INTERNATIONAL COMMERCE

Foreign Production and Commercial Reports

Index to foreign production and commercial reports. No. 9. Sept. 1970. 28pp. Free.
Cumulative index to foreign production and commercial reports. Aug. 1969-July 1970. 295pp. Free.

Export Control

Export control bulletin—supplement to export control regulations. Number 30. Oct. 16. 25¢. Exports of walnut logs.

Foreign Economic Trends

Annual subscription, $15 ($6 additional for foreign mailing). Single copy, 10¢. **Congo** (ET 70-105). Sept. 24. 12pp. **Canada** (ET 70-106). Sept. 25. 12pp.

International Marketing Information Service

Exhibitor's Export Market Guides

Growing economy, big agricultural push foretell rising U.S. sales in Venezuela (IMIS 70-50). Sept. 1970. 4pp. 10¢.
Good sales potential in France for U.S. auto diagnostic and service equipment (IMIS 70-51). Oct. 1970. 5pp. 10¢.
British buyers look to U.S. firms for electronic components, instrumentation (IMIS 70-52). Sept. 1970. 4pp. 10¢.

Country Market Digest

Best U.S. sales prospects in Hong Kong (IMIS 70-109). Oct. 1970. 9pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 additional for foreign mailing). Single copy 15¢, unless otherwise specified.
Foreign trade regulations of Ecuador (OBR 70-42). Aug. 1970. Supersedes OBR 67-48. 8pp.
Establishing a business in Greece (OBR 70-46). Sept. 1970. Supersedes OBR 67-16. 24pp.
Basic data on the economy of Canada (OBR 70-47). Sept. 1970. Supersedes OBR 67-98. 20pp.
Establishing a business in Belgium (OBR 70-49). Sept. Supersedes OBR 66-80. 24pp.
Establishing a business in Morocco (OBR 70-51). Sept. Supersedes OBR 65-17. 12pp.
Trading with East Europe (OBR 70-52). Sept. 1970. 8pp.

BUREAU OF THE CENSUS

1967 Census of Commercial Fisheries

Census of commercial fisheries, 1967 (FC67-1). Oct. 1970. 24 pp. 30¢.

Foreign Trade

U.S. commodity exports and imports as related to output 1966 and 1967. Bureau of the Census. 236pp. $2.

County Business Patterns, 1969

U.S. summary (CBP 69-1). Aug. 1970. 312 pp. $2.25.

Small-Area Data Notes

Small-area data notes. Sept. 1970. Vol. 5, No. 9. Distributed occasionally by the Bureau of the Census. Cites developments and services in other Census Bureau programs. 8pp. 10¢.

Agriculture

Report on cotton ginnings prior to October 1 for the crop of 1970, by counties (A20: 70-2). Oct. 23. 5pp. 10¢.

Construction and Housing

Construction Reports

Sales of new one-family homes, August 1970 (C25-70-8). Oct. 1970. Annual subscription (including monthly, quarterly, and annual reports), $3.
Value of new construction put in place, August 1970 (C30-70-8). Oct. 1970. Annual subscription $1.50, includes monthly and annual supplement. Single copy 10¢.

Current Housing Reports

Housing authorized by building permits and public contracts: August 1970 (C40-70-8). Oct. 1970. 84pp. Data for states, standard metropolitan statistical areas and individual areas. Subscription price: $11 per year; $2.75 additional for foreign mailing. Annual, $2.75. Single copy 70¢.
Authorized construction Washington, D.C. area, September 1970 (C41-70-9). Oct. 4pp. Annual sub. $1. Single copy 10¢.
Residential alterations and repairs—expenditures on residential additions, alterations, maintenance and repairs, and replacements, second quarter 1970 (C50-70-Q2). Oct. 1970. 10pp. Annual subscription, including two-part annual report, $1.50. Single copies 25¢ each.

1970 Census of Housing

Housing Unit Counts for States—Preliminary Reports: **California** (HC(P1)-6). October. 3 pp. 10¢; **Illinois** (HC(P1)-15). October 2pp. 10¢; **Virgin Islands of the U.S.** (HC(P1)-55). October. 1p. 10¢.

1967 Census of Construction Industries—Area Statistics

A U.S. summary and a separate report for each state and the District of Columbia presenting limited data for all establishments and detailed data for establishments with payroll. Each of the following reports is dated September 1970, contains 27 pages, and is priced at 35¢:
Alabama (CC67-A-2); **Arkansas** (CC67-A-5); **Delaware** (CC67-A-9); **Florida** (CC67-A-11); **Georgia** (CC67-A-12); **Kentucky** (CC67-A-19); **Louisiana** (CC67-A-20); **Maryland** (CC67-A-22); **Mississippi** (CC67-A-26); **Missouri** (CC67-A-27); **North Carolina** (CC67-A-35); **Oklahoma** (CC67-A-38); **South Carolina** (CC67-A-42); **Tennessee** (CC67-A-44); **Texas** (CC67-A-45); **Virginia** (CC67-A-48); **West Virginia** (CC67-A-50).

Distribution and Services

Current Reports

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States week ending Oct. 17 (CB 70-368). Oct. 22. 2pp. 10¢.
Weekly retail sales. Estimated weekly retail sales of retail stores in the United States week ending Oct. 24 (CB 70-369). Oct. 29. 10¢.
Monthly retail trade. Sales and accounts receivable: August 1970 (BR-70-8). Oct. 19. Annual sub. $1. Single copy 10¢.
Monthly wholesale trade: August 1970 (BW-70-8). Oct. 14. Sales and inventories. Annual subscription $2. Single copy 20¢.

Special Current Business Reports

Monthly department store sales in selected areas: August 1970 (BD-70-8). Oct. 19. Annual subscription $1. Single copy 10¢.

1967 Census of Business

Wholesale Trade—Subject Report

Sales by class of customer (BC67-WS4). Sept. 1970. 112pp. 70¢.

Subject Reports

Public warehousing (BC67-WS9). Sept. 1970. 68pp. 60¢.

Foreign Trade

Current Reports

U.S. export and import merchandise trade: September 1970 (FT 900). Oct. 26. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.
U.S. trade with Puerto Rico and U.S. possessions: June 1970 (FT 800). Oct. 1970. Annual subscription $2.50 (75¢ additional for foreign mailing). Single copy 20¢.
U.S. gold movements: September 1970 (FT 2402). Oct. 26. 2pp. Annual subscription $1. Single copy 10¢.

Governments

Government Finances

Local Government finances in selected metropolitan areas in 1968-69 (GF69, No. 6). Oct. 1970. 48pp. 50¢.
Quarterly summary of State and local tax revenue April-June 1970 (GT 70, No. 2). Oct. 1970. 8pp. 10¢.

Industry

Manufacturers' shipments, inventories, and orders: 1961-70 (Series M3-1.2). Re-

vised seasonal factors through 1970. Oct. 1970. 96pp. $1.

Glass containers—summary for 1969 (Series: M32G(69)-13). Oct. 20. 4pp. Subscription: $1.50 per year. Single copy 15¢.

1967 Census of Manufactures

Industry Series

Bakery products (MC67(2)-20E). Oct. 1970. 36pp. 45¢.

Miscellaneous apparel and accessories (MC67(2)23D). Oct. 1970. 44pp. 50¢.

Industrial chemicals (MC67(2)-28A). Sept. 1970. 60pp. 40¢.

Drugs (MC67(2)-28C). Sept. 40pp. 55¢.

Soap, cleaners, and toilet goods (MC67(2)-28D). Oct. 1970. 40pp. 40¢.

Cement and structural clay products (MC67(2)-32B). Sept. 1970. 36pp. 40¢.

Concrete, plaster, and cut-stone products (MC67(2)-32D). Sept. 1970. 42pp. 45¢.

Abrasive, asbestos, and miscellaneous nonmetallic mineral products (MC67(2)-32E). Sept. 1970. 48pp. 45¢.

Smelting and refining of nonferrous metals and alloys (MC67(2)-33C). Sept. 1970. 48pp. 50¢.

Forgings and miscellaneous primary metal products (MC67(2)-33E). Sept. 1970. 36pp. 40¢.

Heating apparatus (except electric) and plumbing fixtures (MC67(2)-34B). Oct. 1970. 40pp. 40¢.

Fabricated structural metal products (MC67(2)-34C). Oct. 1970. 56pp. 55¢.

Miscellaneous metal products (MC67(2)-34E). Sept. 1970. 60pp. 55¢.

Office, computing, and accounting machines (MC67(2)-35F). Oct. 40pp. 40¢.

Communication equipment, including radio and TV, and electronic components and accessories (MC67(2)-36D). Sept. 1970. 68pp. 65¢.

Ordnance and accessories (MC67(2)-19A). Oct. 1970. 36pp. 45¢.

Meat products (MC67(2)-20A). Oct. 1970. 36pp. 45¢.

Fats and oils (MC67(2)-20H). Oct. 1970. 36pp. 45¢.

Women's and misses' outerwear (MC67(2)-23B). Oct. 1970. 48pp. 50¢.

Pulp, paper and board mills (MC67(2)-26A). Oct. 1970. 48pp. 55¢.

Petroleum and coal products (MC67(2)-29A. Oct. 1970. 36pp. 50¢.

Office supplies, costume jewelry, and notions (MC67(2)-39C). Oct. 1970. 38pp. 40¢.

1967 Census of Manufactures

Area Series

Texas (MC67(3)-44). Sept. 64pp. 55¢.

Virginia (MC67(3)-47). Sept. 42pp. 45¢.

1963 Census of Mineral Industries

Indexes of production. Volume III. Oct. 1970. 32pp. 40¢. This volume, which is a joint effort of the Bureau of the Census and the Board of Governors of the Federal Reserve System, presents measures of change in mining output activity from 1954 to 1958 and from 1958 to 1963.

1967 Census of Mineral Industries

Summary Series—Preliminary Reports

General statistics for geographic divisions and states (MIC67(P)-2). Oct. 8pp. 10¢.

Water use in the mineral industries: 1968 (MIC67(P)-3). Oct. 1970. 4pp. 10¢.

Population

Consumer Buying Indicators

Special report on household ownership of cars, homes, and selected household durables: 1970, 1969, and 1960 (Series P-65, No. 33). Oct. 16. 10pp. Single copy 15¢

1970 Census of Population

Each of the following reports is dated October 1970, contains two pages and is priced at 10¢:

Altoona, Pa. (PC(P2)-7); **Bloomington-Normal, Ill.** (PC(P2)-26); **Champaign-Urbana, Ill.** (PC(P2)-35); **Chicago, Ill.** (PC(P2)-40); **Colorado Springs, Colo.** (PC(P2)-43); **Denver, Colo.** (PC(P2)-52); **Erie, Pa.** (PC(P2)-59); **Harrisburg, Pa.** (PC(P2)-81); **Johnstown, Pa.** (PC(P2)-92); **Lancaster, Pa.** (PC(P2)-100); **Peoria, Ill.** (PC(P2)-152); **Pittsburgh, Pa.** (PC(P2)-156); **Pueblo, Colo.** (PC(P2)-162); **Rockford, Ill.** (PC(P2)-170); **Trenton, N.J.** (PC(P2)-209); **Washington, D.C., Md., Va.** (PC(P2)-218); **York, Pa.** (PC(P2)-229).

Transportation

1967 Census of Transportation

National travel survey (Volume 1). July 1970. 100pp. $3. Data in this volume supersede data previously published in the earlier report, National Travel Survey, TC67-N1. Volume 1 contains final data on volume and characteristics of travel by U.S. residents during 1967.

SCIENCE AND TECHNOLOGY

National Oceanic and Atmospheric Admin.

Marine Weather Services Charts

Eastport, Me. to Montauk Point, N.Y. June 1970. Not for navigation. 12″ x 19″. 15¢.

Eureka, Cal. to Canadian Border. March 1970. Not for navigation. 12″ x 19″. 15¢.

Technical Report

SIXBIT, a generalized reaction kinetics program (ESSA TR ERL 177-SDL 15). Aug. 1970. 110pp. $1.

Estimating cloud amount and height from satellite infrared radiation data (ESSA TR NESC 54). July 1970. 20pp. 25¢.

A two-signal primer for Fourier analysis of a random access communication system (ESSA TR ERL 178 ITS-113). July 1970. 32pp. 40¢.

National Bureau of Standards

Periodical

Technical news bulletin. Oct. 1970. Vol 54, No. 10. Annual sub. $3 ($1 extra for foreign mailing). Single copy 30¢.

Climatological data. National summary. Vol. 21, No. 5. May 1970. Annual subscription $2.50 including annual summary ($1 additional for foreign mailing). Single copy 20¢; annual summary 40¢.

Monthly climatic data for the world. Sponsored by the World Meteorological Organization. Vol. 23, No. 4. April 1970. Annual subscription $2.75. ($1 additional for foreign mailing). Single copy 25¢.

Monthly weather review. Oct. 1970. Vol. 98, No. 10. Annual subscription $7.50 ($2 additional for foreign mailing). Single copy 65¢.

National Standard Reference Data System ionization potentials and ionization limits derived from the analyses of optical spectra (NSRDS-NBS 34). Sept. 22pp. 75¢.

Monograph

Standard x-ray diffraction powder patterns (Mono. 25—Section 8). Sept. 1970. 171pp. $1.50. Standard x-ray diffraction patterns are presented for 81 substances.

Special Publication

An author and permuted title index to selected statistical journals (Spec. Publ. 321). Sept. 1970. 510pp. $5.75. Over 5,000 articles appearing in the following journals are indexed: Annals of Mathematical Statistics (1961-69), Biometrics (1965-69 #3), Biometrika (1951-69), Journal of the America Statistical Association (1956-69), Journal of the Royal Statistical Society, Series B (1954-69 #2), South African Statistical Journal (1967-69 #2), Technometrics (1959-69).

Spectrum formation in stars with steady-state extended atmospheres (NBS Spec. Publ. 332). Aug. 1970. (October) 1970. 342pp. $1.75. Proceedings of the International Astronomical Union Colloquium No. 2, Commission 36, Munich, Germany, April 16-19, 1969.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 65¢), unless otherwise specified.

Safety Engineering

Consumer education and product safety (PB-194 180). R. D. Blomberg, Dunlap and Associates, Inc., Darien, Conn., for the National Commission on Product Safety, Feb. 1970, 66pp. Report focuses on lawn mowers, electric saws, kitchen blenders, and electric toys.

A procedure for estimating the costs of injuries associated with household products (PB-194 187). National Commission on Product Safety, Washington, D.C., March 1970, 383pp.

Laboratory testing and evaluation of microwave ovens (PB-194 484). Bureau of Radiological Health, Rockville, Md., Oct. 1970, 140pp.

Sanitation and pollution

Joint conference on prevention and control of oil spills (proceedings) (PB-194 395). American Petroleum Institute, New York, N.Y., and Federal Water Pollution Control Admin., Washington, D.C., Dec. 1969, 329pp.

Technical Notes

Improvements in oscilloscopic measurements in high-speed experiments (NBS Tech. Note 539). Oct. 1970. 20pp. 30¢.

Analytical coordination chemistry section: summary of activities July 1969 to June 1970. (NBS Tech. Note 544). Sept. 1970. 151pp. $1.25.

Methods of measurement for semiconductor materials, process control, and devices—quarterly report: Jan 1 to Mar. 31, 1970 (NBS Tech. Note 555). Sept. 63pp. 65¢.

The brake pedal force capability of adult females (NBS Tech. Note 557), Oct. 1970. 25pp. 35¢.

Social Sciences and Education

Land disposal techniques and procedures (PB-193 652). Michigan State Univ., East Lansing, for the Public Land Law Review Commission, Dec. 1969 (Rev. May 1970), 200pp.

Housing as an interim land use (PB-194 033). Midwest Planning and Research, Inc., Minneapolis, Minn., for HUD, June 1970, 144pp.

Impact of transportation noise on urban residential property values with special reference to aircraft noise (PB-194 101). Georgetown Univ., Washington, D.C. for the Urban Mass Transportation Admin., August 1970, 24pp.

Biological and Medical Sciences

Lipids and cancer—a bibliography: 1947-70 (ORAU-111). Oak Ridge Associated Universities, Oak Ridge, Tenn., June 1970, 118pp.

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Commerce Department Directory

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DENVER, COLO., 80202, Room 161 New Customhouse, 19th and Stout Sts. Area Code 303, 837-3246.

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DETROIT, MICH., 48226, 445 Federal Bldg. Area Code 313, 226-6088.

GREENSBORO, N.C., 27402, 258 Federal Bldg., W. Market St. P.O. Box 1950. Area Code 919, 275-9111.

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